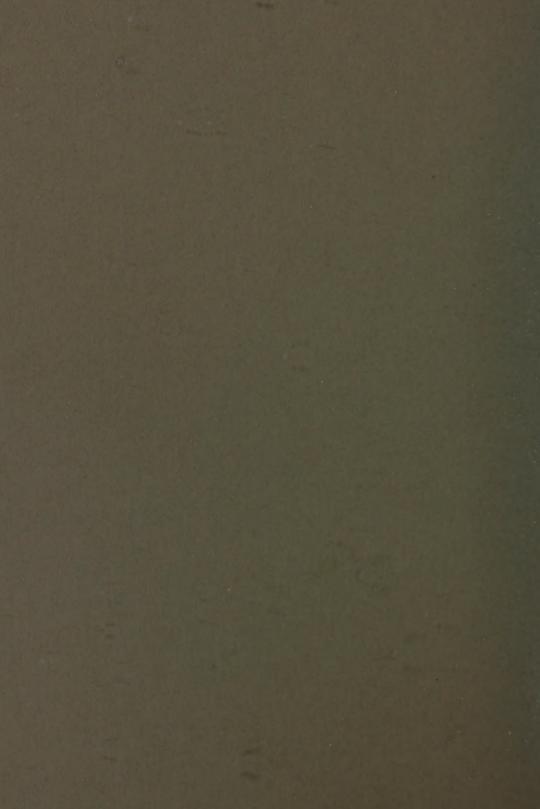
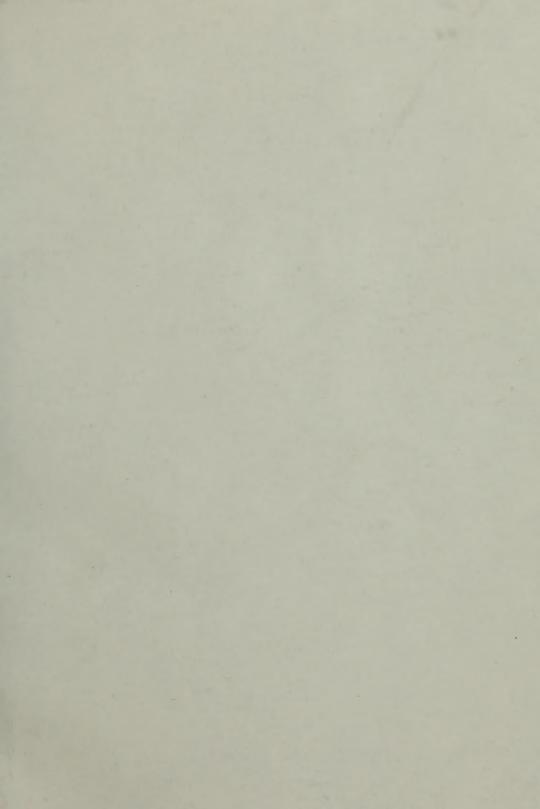


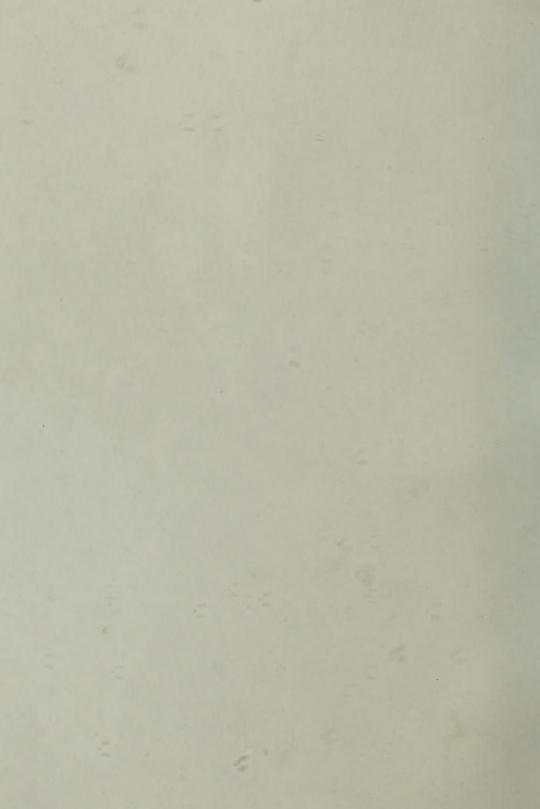
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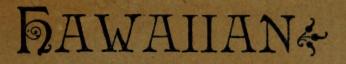
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FOR



The Reference Book of Information and Statistics Relating to the Territory of Hawaii

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Forty-Eighth Year

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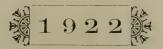
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Relating to the Territory of Hawaii, of Value to Merchants, Tourists and Others

THOS. G. THRUM

Compiler and Publisher

Forty-Eighth Year of Publication

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HONOLULU

December, 1921

Counting House 1922 Calendar 1922

| | SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | | SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|------|-------------------------|---------------------|-------------------------|---------------------|---------------------|---------------------|-------------------------|-------|---------------------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| JAN. | 1 8 15 22 | 2 9 16 23 | 3 10 17 24 | 4 11 18 25 | 5 12 19 26 | 6 13 20 27 | 7 14 21 28 | JULY | 2 9 16 | 3 10 17 | 4 11 18 | 5 12 19 | 6 13 20 | 7 14 21 | 1 8 15 22 |
| FEB. | 29 5 12 19 | 30 6 13 20 | 31 7 14 21 | 1 8 15 22 | 2 9 16 23 | 3 10 17 24 | 11 18 25 | AUG. | 23 30 6 13 | 24 31 7 14 | 25 1 8 15 | 26 2 9 16 | 27 3 10 17 | 28 4 11 18 | 29 5 12 19 |
| MAR. | 26 5 12 19 | 27 6 13 20 | 28 7 14 21 | 1 8 15 22 | 2 9 16 23 | 3 10 17 24 | 4 11 18 25 | SEPT. | 20 27 3 10 | 21 28 4 11 | 22 29 5 12 | 23 30 6 13 | 24 31 7 14 | 25 1 8 15 | 26 2 9 16 |
| APR. | 26 9 16 | 27 3 10 17 | 28 4 11 18 | 29 5 12 19 | 30 6 13 20 | 31 14 21 | 1 8 15 22 | OCT. | 17 24 1 8 | 18 25 2 9 | 19 26 3 10 | 20 27 4 11 | 21 28 5 12 | 22 29 6 13 | 23 30 7 14 |
| MAY | 23 30 7 14 | 24 1 8 15 | 25 2 9 16 | 26 3 10 17 | 27 4 11 18 | 28 5 12 19 | 29 6 13 | NOV. | 15 22 29 | 16 23 30 | 17 24 31 | 18 25 1 8 | 19 26 | 20 27 3 10 | 21 28 4 |
| JUNE | 21 28 4 | 22 29 5 | 23 30 6 | 24 31 | 25 1 8 | 26 2 9 | 20 27 3 10 | DEC. | 5 12 19 26 | 6 13 20 27 | 7 14 21 28 | 15 22 29 | 9 16 23 30 | 17 24 | 11 18 25 2 |
| | 11 18 25 | 12 19 26 | 13 20 27 | 14 21 28 | 15 22 29 | 16 23 30 | 17 24 | | 3 10 17 24 31 | 4 11 18 25 | 5 12 19 26 | 6 13 20 27 | 7 14 21 28 | 8 15 22 29 | 9 16 23 30 |

Thus. G. Thrum

The Hamatian Annual

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HAWAIIAN ANNUAL CALENDAR FOR 1922.

Second half of the twenty-fourth year and first half of the twenty-fifth year since annexation of Hawaii with the United States.

Twenty-seventh year since the downfall of the Monarchy.

The 144th year since the discovery of the Hawaiian Islands by Captain Cook.

One hundred and second year since the arrival of the American Mission.

Holidays Observed at the Hawaiian Islands.

^{*}Those distinguished by the asterisk have been established by law.

Church Days.

| EpiphanyJan. 6 | Ascension DayMay 25 |
|----------------------------|-----------------------|
| Ash WednesdayMch. 1 | Whit SundayJune 4 |
| First Sunday in LentMch. 5 | Trinity SundayJune 11 |
| Palm SundayApril 9 | Corpus ChristiJune 15 |
| Good FridayApril 14 | Advent Sunday Dec. 3 |
| Easter Sunday | Christmas Dec. 25 |

Eclipses in 1922.

There will be but two eclipses during the year, both of the sun.

- I. An annular eclipse, March 28, and
- II. A total eclipse, September 20, neither of which will be visible in these islands.

FIRST QUARTER, 1922

| JANUARY | | EBRUAR | V | | MARCI | ==== |
|---|--|--|---|---|---|--|
| D H. M 5 First Quar 11.54 | D. m. 4 First a. m. 11 Full p. m. 18 Last | t Quar. 6 Moon 2 Quar. 7 | I. M. 5.22 p. m. 2.48 p. m. 7.48 a. m. 3.18 a. m. | 13 Ful | MARCH et Quar. 1 Moon t Quar. 7 Moon | H. M. 8.52 a. m. 0.44 a. m. 10.13 p. m. 2.33 a. m. |
| of Wk Ses H.M. H. M. 6 38 15 3 | M. 1 We | Dav of Wises H.M. ed6 37 4 urs 6 37 0 | | | Sun Rises H.M. ed6 20 | 36 4 7 |
| 3 Tues. 6 38 7 5 3 4 Wed. 6 38 9 5 3 | 3 4 3 Fri 4 Sat 5 SU 6 Moi 4 1 7 Tue 6 9 The 10 Fri 11 Sat 7 5 8 2 13 Moi 14 Tue 9 6 15 Wee 15 Wee 16 17 Fri 18 Sat 19 SU 3 6 9 6 3 6 9 7 5 5 7 6 6 3 25 Sat 6 9 26 SU 7 5 8 1 28 8 8 9 4 Su 20 Moi 3 6 9 26 SU 7 5 Sat 27 Moi 8 8 8 8 9 4 Su 3 Tue 8 8 8 9 4 Su 3 Tue 8 8 8 9 4 Su 3 Tue 5 Su 3 S | 6 36 6 6 36 2 N . 6 35 7 n . 6 35 3 es . 6 34 8 d . 6 34 3 urs 6 33 8 6 32 8 N . 6 32 2 n . 6 31 0 d . 6 30 4 urs 6 29 8 6 27 8 n . 6 27 1 es . 6 26 5 d . 6 25 8 urs 6 25 1 6 24 3 6 22 7 | 5 51 9 5 52 5 5 53 1 5 53 7 5 54 2 5 54 8 5 55 3 5 56 3 5 56 8 5 57 3 5 57 9 5 58 4 5 59 9 6 0 9 6 1 3 6 1 8 6 2 2 6 3 0 6 3 4 6 3 8 | 3 Fr 4 Sa 5 SU 6 Mo 7 Tr 8 We 9 Th 10 Fr 11 Sa 12 SU 13 Mo 14 Tu 15 We 19 SU 20 Mo 21 Tu 22 We 23 Th 25 Sa 24 Fri 25 Sa 29 We 29 We 29 We | tt 6 17 N. 6 17 N. 6 16 ns. 6 16 ns. 6 15 ed. 6 14 nurs 6 13 i 6 12 t 6 11 N. 6 11 N. 6 11 ns. 6 6 6 t 6 5 N. 6 4 ns. 6 3 es. 6 2 urs 6 1 t 6 0 t 5 59 N. 5 58 ns. 5 57 es. 5 55 urs 5 54 | 56 5 0 76 5 4 96 5 8 06 6 2 26 6 6 6 46 6 9 56 7 3 76 7 7 86 8 0 96 8 4 06 8 7 16 9 0 26 9 3 36 9 7 46 10 0 56 10 3 66 10 6 76 10 9 86 11 2 96 11 6 10 12 2 16 12 5 26 12 8 36 13 1 36 13 4 46 13 7 56 14 0 66 14 7 |

VOLCANO OF KILAUEA, ISLAND OF HAWAII.

Corrected for Deflection of the Vertical.

Area, 4.14 square miles, or 2,650 acres. Circumference, 41,500 feet, or 7.85 miles. Extreme width, 10,300 feet, or 1.95 miles. Extreme length, 15,500 feet, or 2.93 miles. Elevation, Volcano House, 4,000 feet.

SECOND QUARTER, 1922

| APRIL | | 1 | 1AY | | | JL | JNE | |
|--|---|---|--|--|---|---|--|--|
| D 4 First Quar. 11 Full Moon 18 Last Quar. 26 New Moon | H. M. 7.16 p. m. 10.14 a. m. 2.24 p. m. 6.34 p. m. | D 4 First Qu 10 Full Mod 18 Last Qua 26 New Mod | ar. 2. on 7. ar. 7. | M. 26 a. m. 36 p. m. 47 a. m. 34 a. m. | 9 1 | First Qua Full Moo Last Qua New Moo | n 5 n 5 | 7.40 a. m. 5.28 a. m. 1.33 a. m. |
| Day of Wk | 86 15 0 96 15 3 06 15 6 16 16 0 26 16 3 36 16 6 46 16 9 56 17 2 66 17 5 86 17 8 06 18 1 26 18 4 36 18 8 56 19 1 76 19 4 96 19 8 06 20 1 26 20 5 46 20 8 66 21 2 86 21 5 06 22 6 96 23 0 26 23 3 46 23 7 86 24 1 16 24 5 | 2 Tues. 3 Wed. 4 Thurs. 5 Fri 6 Sat. 7 SUN. 8 Mon. 9 Tues. 10 Wed. 11 Thurs. 13 Sat 14 SUN. 15 Mon. 16 Tues. 17 Wed. 18 Thurs. 19 Fri 20 Sat. 21 SUN. 22 Mon. 23 Tues. 24 Wed. 25 Thur 26 Fri | 5 27 6 5 27 0 5 26 4 5 25 8 5 25 3 5 24 7 5 24 3 5 23 8 5 23 4 5 22 9 5 22 4 5 22 0 5 21 6 5 21 2 5 20 5 5 20 5 5 20 5 5 19 8 5 18 8 5 18 5 5 18 7 5 17 5 5 17 5 5 17 5 | 6 25 6 6 26 0 6 26 4 6 26 8 6 27 2 6 27 6 6 28 0 6 28 5 6 28 9 6 29 8 6 30 2 6 30 6 6 31 0 6 31 4 6 31 9 6 32 3 6 32 7 6 33 5 6 33 5 6 35 8 6 35 8 6 36 2 6 37 0 6 37 4 | 2 1 3 4 5 1 6 7 7 8 6 9 1 1 2 1 1 3 1 1 1 1 5 1 1 6 1 1 7 8 1 1 1 2 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 | Thurs Fri Sun Wed Thurs Fri Sun Wed Thurs Fri Sun Wed Thurs Fri Sun Thurs Fri Sun Thurs Fri Sun Thurs Fri Thurs Fri Sun Thurs Fri Thurs Fri Thurs Fri | 5 17 1 5 17 1 5 17 0 5 17 0 5 17 0 5 17 0 5 16 9 5 16 9 5 17 1 5 17 2 5 17 3 5 17 5 5 17 6 5 17 7 5 18 9 5 18 2 5 18 4 6 5 19 8 6 5 19 9 6 5 19 9 6 5 19 9 7 19 19 19 19 19 19 19 19 19 19 19 19 19 | 6 39 0 6 39 4 6 39 8 6 40 1 6 40 5 6 40 9 6 41 2 6 41 5 6 42 2 6 42 5 6 42 8 6 43 1 6 43 4 6 43 6 6 43 9 6 44 1 6 44 6 6 44 7 6 44 9 6 45 1 6 45 5 6 45 5 6 45 7 |

MOKUAWEOWEO.

The Summit Crater of Mauna Loa, Island of Hawaii.

Area, 3.70 square miles, or 2,370 acres.
Circumference, 50,000 feet, or 9.47 miles.
Length, 19,500 feet, or 3.7 miles.
Width, 9.20 feet, or 1.74 miles. Elevation of summit, 13,675 feet.

THIRD QUARTER, 1922

| JULY | AUGUST | SEPTEMBER |
|---|--|---|
| D H. M. 1 First Quar. 0.22 p. m. 8 Full Moon 4.37 p. m. 16 Last Quar. 6.41 p. m. 24 New Moon 2.17 a. m. 30 First Quar. 5.52 p. m. | D H. M. 7 Full Moon 5.49 a. m. 15 Last Quar. 10.16 a. m. 22 New Moon 10.04 a. m. 29 First Quar. 1.25 a. m. | D H. M. 5 Full Moon 9.17 a. m. 13 Last Quar. 11.59 p. m. 20 New Moon 6.08 p. m. 27 First Quar. 0.10 p. m. |
| Day y B B B B B B B B B B B B B B B B B B | De | Day y Em |

IAO VALLEY, ISLAND OF MAUI.

Length (from Wailuku), about 5 miles.
Width of Valley, 2 miles.
Depth, near head, 4,000 feet.
Elevation of Puu Kukui, above head of Valley, 5,700 feet.
Elevation of Crater of Eke, above Waihee Valley, 4,500 feet.

FOURTH QUARTER, 1922

| OCTOBER | NOVEMBER | DECEMBER |
|---|--|---|
| D H. M. 5 Full Moon 2.28 p. m. 13 Last Quar. 11.25 a. m. 20 New Moon 3.10 a. m. 27 First Quar. 2.56 a. m. | D H. M. 4 Full Moon 8.06 a. m. 11 Last Quar. 9.22 p. m. 18 New Moon 1.36 p. m. 25 First Quar. 9.45 p. m. | D H. M. 4 Full Moon 0.54 a. m. 11 Last Quar. 6.11 a. m. 18 New Moon 1.50 a. m. 25 First Quar. 7.23 p. m. |
| Sun Sets Sun Rises Day of Wk H.M. | Sun Sets Sun Rises Day of Wk H.M. | Sun Sets Sun Rises H.M. |
| 1 SUN. 5 51 35 47 4 4 2 Mon 5 51 65 46 5 5 16 5 46 5 5 15 5 44 7 5 Thurs 5 52 45 43 8 6 Fri 5 52 75 42 9 7 Sat 5 53 15 42 0 8 SUN. 5 53 45 41 1 9 Mon 5 53 45 41 1 9 Mon 5 54 55 38 6 12 Thurs 5 54 55 38 6 12 Thurs 5 54 55 38 6 12 Thurs 5 54 55 36 6 12 Thurs 5 55 55 36 1 15 SUN 5 55 55 36 1 15 SUN 5 55 55 36 1 15 SUN 5 56 65 33 7 7 10 10 10 10 10 10 | 1 Wed 6 3 3 5 23 9 2 Thurs 6 3 8 5 23 3 3 Fri 6 4 3 5 22 8 4 Sat 6 4 9 5 22 4 5 SUN. 6 5 4 5 21 9 6 Mon 6 6 0 5 21 4 7 Tues. 6 6 5 5 21 0 8 Wed 6 7 15 20 7 9 Thurs 6 7 6 5 20 2 10 Fri 6 8 2 5 19 9 11 Sat 6 8 9 5 19 5 12 SUN. 6 9 5 5 19 2 13 Mon 6 10 15 18 9 14 Tues. 6 10 7 5 18 6 15 Wed 6 11 35 18 3 16 Thurs 6 11 95 18 0 17 Fri 6 12 55 17 8 18 Sat 6 13 15 17 6 19 SUN. 6 13 7 5 17 4 20 Mon 6 14 3 5 17 2 21 Tues. 6 15 0 5 17 1 22 Wed 6 15 7 5 17 1 23 Thurs 6 16 3 5 17 0 24 Fri 6 17 0 5 17 0 25 Sat 6 17 6 5 17 0 26 SUN. 6 18 2 5 17 0 27 Mon 6 18 9 5 17 0 28 Tues. 6 19 6 5 17 1 29 Wed 6 20 2 5 17 1 30 Thurs 6 20 9 5 17 2 | 1 Fri 6 21 55 17 3 2 Sat 6 22 25 17 4 3 SUN. 6 22 25 17 4 3 SUN. 6 22 25 17 7 5 Tue s 6 24 25 17 9 6 Wed. 6 24 85 18 1 7 Thurs 6 25 45 18 4 8 Fri 6 26 05 18 7 9 Sat 6 26 65 19 0 10 SUN. 6 27 35 19 3 11 Mon. 6 27 95 19 6 12 Tues. 6 28 55 19 9 13 Wed. 6 29 15 20 3 14 Thurs 6 29 75 20 6 15 Fri 6 30 35 21 0 16 Sat 6 30 85 21 4 17 SUN. 6 31 45 21 9 18 Mon. 6 31 95 22 3 19 Tues. 6 32 55 22 8 20 Wed. 6 33 05 23 3 21 Thurs 6 33 55 23 8 22 Fri 6 34 05 24 3 23 Sat 6 34 55 24 8 24 SUN. 6 35 55 25 9 26 Tues. 6 35 95 26 5 27 Wed. 6 36 65 27 6 29 Fri 6 37 05 28 2 30 Sat 6 37 35 28 5 SUN. 6 37 75 28 8 |

HALEAKALA, ISLAND OF MAUI.
The great Crater of Maui, the largest in the world.

Area, 19 square miles, or 12,160 acres.
Circumference, 105,600 feet, or 20 miles.
Extreme width, 2.37 miles. Extreme length, 7.48 miles.
Elevation to summit, 10,032 feet.
Elevation of principal cones in crater, 8,032 and 1,572 feet.
Elevation of cave in floor of crater, 7,380 feet.

INTER-ISLAND DISTANCES BY SEA IN SEA MILES.

| | ULU—ESPLANADE WHARF TO |
|--|--------------------------------------|
| AROUND OAHU FROM HONOL Miles. | Miles. |
| Bell Buoy 1¼ | Pearl River Bar 6 |
| Diamond Head 5 | Barber's Point |
| Koko Head12 | Waianae Anchorage 26 |
| Makapuu Point16 | Kaena Point, N. W. of Oahu 36 |
| Mokapu27 | Waialua Anchorage 46 |
| Kahuku North Point48 | Kahuku N. Pt., Oahu, via Kaena. 58 |
| HONOLU | JLU TO |
| Lae o ka Laau, S. W. Pt. Molokai 35 | |
| Kalaupapa, Leper Settlement 52 | Kawaihae, "144 |
| West Point of Lanai 50 | Kealakekua, (ulfect)131 |
| Lahaina, Maui | S. W. Pt. "233 Punaluu, "250 |
| 77 # # # # # # # # # # # # # # # # # # | |
| Hana, " | Hilo, " (direct)192 " (windward) 206 |
| Makena, " 96 | " (via Kawai- |
| | hae230 |
| HONOLU | LU TO |
| Nawiliwili, Kauai 98 | Hanalei, Kauai125 |
| Koloa, "102 | Niihau144 |
| Waimea, "120 | Niihau144 |
| LAHAINA | , MAUI, TO |
| | Maalaea, Maui 12 |
| Lanai 9 | Makena, Maui |
| KAWAIHAE, | |
| | Hilo, Hawaii 85 |
| Waipio, Hawaii 37 | |
| | Kailua, Hawaii |
| | |
| HILO, HA East Point of Hawaii 20 | |
| Keauhou, Kau, Hawaii 50 | Kaalualu, Hawaii |
| North Point of Hawaii 62 | South Point of Hawaii 85 |
| | CHANNELS. |
| | |
| Oahu and Molokai | Maui and Lanai |
| Molokai | |
| | Kauai and Oahu |
| | Niihau and Kauai |
| OCEAN DI | STANCES. |
| HONOLU | |
| San Francisco2100 | Auckland3810 |
| San Diego | Sydney |
| Portland, Or | Hongkong4920 |
| Brito, Nicaragua4200 | Yokohama3400 |
| Panama | Guam |
| Tahiti | Manila, via N. E. Cape4890 |
| Samoa | Victoria, B. C |
| E-131 | midway Islands |

OVERLAND DISTANCES.

Revised by County Road Officials

ISLAND OF OAHU.

HONOLULU POST-OFFICE TO

| Miles. | Inter. | Miles. | Inter. |
|-----------------------------|--------|-------------------------------|--------|
| Seaside Hotel Gate 3.5 | | Kualoa—Swanzy's21.2 | 2.2 |
| Moana Hotel 3.6 | | Old Mill | 0.7 |
| Waikiki Inn 3.7 | | Kaaawa23,5 | 1.6 |
| Public Baths: Kapiolani | | Kahana Bridge25.9 | 1.4 |
| Park 4.3 | | Punaluu Bridge28.0 | 2.1 |
| Diamond Head Light | | Kaluanui Bridge29.6 | 1.6 |
| House 5.5 | | Hauula Bridge30.8 | 1.2 |
| Kaalawai 6.0 | | Laiemaloo32.8 | 2.0 |
| | | Laiewai Bridge No. 133.9 | 1.1 |
| Thomas Square 1.0 | | Laiewai Bridge No. 234.5 | 0.6 |
| Pawaa Junction 2.2 | 1.2 | Malaekahana Bridge36.0 | 1.5 |
| Kamoiliili Church 3.2 | 1.0 | Kahuku Plant. Office36.7 | 0.7 |
| Kaimuki Hill Reservoir. 5.0 | 1.8 | Kahuku Ranch40.0 | 3.3 |
| Waialae 6.2 | 1.2 | | |
| Niu 8.8 | 2.6 | Moanalua 3.4 | |
| Koko Head11.8 | 3.0 | Top Pukaki Hill 5.2 | 1.8 |
| Makapuu | 3.0 | Halawa Bridge No. 1 7.0 | 1.8 |
| Waimanalo Landing via | | Aiea Store 7.4 | 0.4 |
| Koko Head20.8 | 6.0 | Kalauao 7.8 | 0.4 |
| Waimanalo Landing via | | Waimalu Bridge 9.2 | 1.4 |
| Pali | | Waiawa Bridge11.3 | 2.1 |
| | | Waialua-Waipahu Junc- | |
| Nuuanu Bridge 1.1 | | tion11.8 | 0.5 |
| Mausoleum 1.6 | 0.5 | Kipapa Bridge15.7 | 3.9 |
| Electric Reservoir 2.7 | 1.2 | Waikakalaua Bridge18.6 | 2.9 |
| Luakaha 4.3 | 1.6 | Castner and Wahiawa | |
| Nuuanu Dam 5.1 | 0.8 | Road20.9 | 2.3 |
| Pali 6.6 | 1.5 | Kaukonahua Bridge22.2 | 1.3 |
| Road to Waimanalo 7.8 | 1.2 | Haleiwa Hotel30.5 | 8.3 |
| Kaneohe Court House11.6 | 3.8 | Kawailoa Bridge32.6 | 2.1 |
| Federal Wireless Sta12.2 | 0.6 | Waimea Bridge34.9 | 2.3 |
| Waiahole Bridge18.1 | 5.9 | Boys' Industrial School. 39.4 | 4.5 |
| Waikane Post Office19.0 | 0.9 | Kahuku Plant. Office44.7 | 5.3 |

ISLAND OF HAWAII.

SOUTH KOHALA.-WAIMEA COURT HOUSE, TO

| Miles. | Inter. | Miles. | Inter. |
|----------------------------|--------|---------------------------|--------|
| Hamakua boundary 4.5 | | Hilo, via Humuula Stn54.0 | 25.0 |
| Kukuihaele Mill11.0 | 6.5 | Keamuku Sheep Stn14.0 | |
| Mana 7.7 | | Napuu | 8.0 |
| Hanaipoe | 7.3 | Keawewai 8.0 | |
| Keanakolu24.0 | 9.0 | Waika11.0 | 3.0 |
| Puakala34.0 | 10.0 | Kahuwa13.0 | 2.0 |
| Laumaia36.5 | 2.5 | Puuhue | 4.0 |
| Auwaiakekua12.5 | | Kohala Court House22.0 | 5.0 |
| Humuula Sheep Sation. 29.0 | 16.5 | Mahukona22.0 | |
| via Laumaia 47.5 | | Puako12.0 | |

| NORTH KOHALA.—FOR | EIG | N CHURCH, KOHALA, TO | |
|--|------------|--|-----------|
| Mil | les. | _ | Iiles. |
| Edge of Pololu Gulch 4 | 1.00 | Union Mill | |
| Niulii Mill 2 | 2.80 | Union Mill R. R. Station | |
| Halawa Mill | | Honomakau | |
| Hapuu Landing 2 Kohala Mill | 5.10 | Hind's, Hawi | 4 25 |
| Kohala Mill Landing 1 | | Honoipu | |
| Native Church | | Mahukona | |
| | | Puuhue Ranch | |
| NORTH KOHALA.—ON | MA | IN ROAD, MAHUKONA TO | |
| Miles. In | | | nter. |
| Hind's Mill 7.0 | | Wight's Corner11.5 | 1.1 |
| | 1.0 | Niulii Corner12.8 | 1.3 |
| Court made to the transfer | 1.2 | Pololu Edge of Gulch14.5 | 1.7 |
| | 0.5 | Puu Hue 5.0 | • • |
| |).7 | | |
| | | -KAWAIHAE TO | f:1 |
| | ter. | Mana, Parker's | files. |
| | 3.3 | Keawewai | 6.0 |
| | 1.8 | Puuhue Ranch | |
| | 1.3 | Kohala Court House | |
| z di to porta, i di tiri di tiri i d | 1.0 | Mahukona | |
| | .4 | Napuu | |
| Kukuihaele Church 22.1 | 0.9 | Puako | . 5.0 |
| KONA.—KE | ALA | AKEKUA TO | |
| Keauhou 6.0 | | Kawaihae42.0 | 4.6 |
| | 3.6 | Honaunau 4.0 | |
| | 2.4 | Hookena 7.7 | 3.7 |
| | 1.0 | Olelomoana15.2 | 7.5 |
| | 3.6 | Hoopuloa21.6 | 6.4 |
| | 3.0 1.0 | Boundary of Kau24.8 Flow of '8732.0 | 7.2 |
| | 5.8 | Kahuku Ranch36.5 | 4.5 |
| | , | O HOUSE TO | 2.0 |
| | | Honuapo32.6 | 5.0 |
| | 6.0 | Naalehu | 3.0 |
| | 5.0 | Waiohinu37.1 | 1.5 |
| | .6 | Kahuku Ranch43.1 | 6.0 |
| PUNA.—HILO | COI | URT HOUSE TO | |
| | les. | | Iiles. |
| Keaau, Forks of Road | 9.0 | Kaimu | |
| Pahoa2 | 0.0 | Kalapana | |
| Pohoiki2 | | Keauhou | |
| Kapoho (Lyman's)3 | | Panau | |
| Opihikao3 | | Volcano House via Panau | |
| Kamaili Beach | | Sand Hills, Naawale, old road Kapoho, old road | |
| | , | | . 22 2. 0 |
| | | D.—HILO TO Mountain View | 16.9 |
| Shipman's | | Mason's | |
| Coconut Grove | | Hitchcock's | |
| Branch Road to Puna | 9.0 | Cattle Pen | |
| Furneaux's1 | 3.2 | Volcano House | .31.0 |
| | | | |

THROUGH HILO DISTRICT TO

| Inkough hil | O DISTRICT TO |
|-------------------------------------|---------------------------------|
| Miles. | Miles. |
| Honolii Bridge 2.5 | Honohina Church |
| Papaikou Office 4.7 | Waikaumalo Bridge18.8 |
| Onomea Church 6.9 | Pohakupuka Bridge21.0 |
| | Maulua Gulch22.0 |
| | Kaiwilahilahi Bridge24.0 |
| | Laupahoehoe Church26.7 |
| Umauma Bridge16.0 | |
| Cinduma Dilago IIIIIIII III III III | |
| THROUGH HAMAKUA.—L. | AUPAHOEHOE CHURCH TO |
| Bottom Kawalii Gulch 2.0 | Kuaikalua Gulch22.0 |
| Ookala, Manager's House 4.0 | , |
| Kealakaha Gulch 6.0 | Waipanihua24.3 |
| · | Stream at Kukuihaele26.0 |
| Kukaiau Gulch 8.0 | Edge Waipio26.5 |
| Catholic Church, Kainehe 9.0 | Bottom Waipio27.0 |
| Notley's, Paauilo10.5 | Waimanu (approximate)32.5 |
| Kaumoalii Bridge12.5 | Kukuihaele to Waimea (approx- |
| Bottom Kalopa Gulch14.0 | imate)10.5 |
| Wm. Horner's, Paauhau15.2 | Gov't. Road to Hamakua Mill 1.5 |
| Paauhau Church16.3 | |
| | Gov't. Road to Paauhau Mill 1.0 |
| Holmes' Store, Honokaa18.0 | Gov't. Road to Pacific Sugar |
| Honokaia Church20.5 | Mill, Kukuihaele0.7 |
| | |

ISLAND OF MAUI.

KAHULUI TO

| | KAHU | LUI TO | |
|----------------------|--------|------------------------------|------------|
| Miles. | Inter. | Miles. | Inter. |
| Spreckelsville 4.0 | | Paia P. O 7.2 | |
| Paia P. O 7.2 | 3.2 | Makawao Court House. 11.6 | 4.4 |
| Hamakuapoko Mill 9.2 | 2.0 | Olinda18.5 | 6.9 |
| Haiku P. O | 1.8 | Haleakala, edge Crater. 26.6 | 8.1 |
| Halehaku17.2 | 6.2 | Haleakala Summit28.6 | 2.0 |
| Huelo School20.2 | 3.0 | | |
| Kailua23.7 | 3.5 | Maalaea10.3 | |
| Keanae P. O35.5 | 11.8 | End of Mountain Road. 15.8 | 5.5 |
| Nahiku Landing49.9 | 14.4 | Olowalu19.9 | 4.1 |
| Ulaino School49.2 | .7 | Lahaina Court House25.5 | 5.6 |
| Hana P. O55.6 | 6.4 | | |
| Hamoa58.2 | 2.6 | Waiehu 6.4 | |
| Wailua62.6 | 4.4 | Waihee 7.3 | 0.9 |
| Kipahulu Mill66.2 | 3.6 | Kahakuloa16.3 | 9.0 |
| Mokulau71.8 | 5.6 | Honokohau23.0 | 6.7 |
| Nuu | 5.2 | Honolua27.0 | 4.0 |
| | | Napili29.8 | 2.8 |
| Wailuku 3.8 | | Honokawai33.5 | 3.7 |
| Waikapu 5.9 | 2.1 | Lahaina Court House39.0 | 5.5 |
| Maalaea | 4.4 | 25.777771. | |
| Kihei | 2.3 | MAKENA TO | |
| Kalepolepo13.9 | 1.3 | Ulupalakua 3.5 | |
| Ulupalakua23.6 | 9.7 | Kamaole 7.3 | 3.8 5.7 |
| Kanaio26.8 | 3.2 | Waiakoa13.0 | |
| Pico's | 7.0 | Makawao P. O20.8 | 7.8 |
| Nuu40.6 | 6.8 | Makawao Court House. 23.0 | 4.4 |
| | | | |

ISLAND OF KAUAI.

NAWILIWILI TO

| Miles. | Inter. | Miles | . Inter. |
|---------------|--------|-----------------------|----------|
| Koloa11.0 | | Wailua River 7.7 | 4.4 |
| Lawai13.8 | 2.8 | Kealia11.9 | 4.2 |
| Hanapepe20.0 | 6.2 | Anahola | 3.8 |
| Waimea27.1 | 7.1 | Kilauea23.6 | 7.9 |
| Waiawa31.5 | 4.4 | Kalihiwai26.6 | 3.0 |
| Nuololo | 13.3 | Hanalei | 5.2 |
| Hanamaulu 3.3 | | Wainiha34.8 | 3.0 |
| , | | Nuololo (no road)47.0 | 12.2 |

ISLAND OF MOLOKAI.

KAUNAKAKAI TO

| Miles. | Miles. |
|--------------------|----------------------|
| Meyer's, Kalae 5.0 | Pukoo |
| Kalaupapa 9.0 | Halawa25.0 |
| Kamalo 9.0 | Ka Lae o ka Laau19.0 |
| Kaluaaha13.5 | |

OAHU RAILWAY DISTANCES.—FROM HONOLULU DEPOT TO

| Miles. | Miles. |
|----------------|-------------------|
| Puuloa 6.0 | Gilbert21.0 |
| Aiea 8.0 | Nanakuli27.0 |
| Kalauao 9.0 | Waianae32.0 |
| Waiau10.0 | Makaha34.0 |
| Pearl City11.0 | Makua40.0 |
| Waipio13.0 | Kawaihapai49 0 |
| Waipahu13.0 | Mokuleia51.0 |
| Leilehua | Puuiki |
| Wahiawa24.0 | Waialua55.0 |
| Hoaeae14.0 | Haleiwa Hotel55.0 |
| Honouliuli | Waimea61.0 |
| Ewa Mill17.0 | Kahuku70.0 |
| | |

Areas and Coast Line Distances, Hawaiian Islands.

Prepared by R. D. King, Survey Department.

Courtesy Walter E. Wall, Surveyor, Terr. Hawaii.

| Islands | Popltn. in 1920 | Miles Square | Acres Area | Coast Line in Miles | Altitude in Feet |
|-----------|--------------------|-----------------|---------------|---------------------------|---------------------|
| Hawaii | 64,895 | 4,015.6 | 2,570,000 | 297 | 13,825 |
| Oahu | 123,496 | 598.0 | 382,720 | 177 | 4.030 |
| Maui | 36,080 | 728.1 | 466,000 | 146 | 10,032 |
| Kauai | 29,247 | 546.9 | 350,000 | 106 | 5,170 |
| Molokai | 1,784 | 260.9 | 167,000 | 100 | 4,958 |
| Lanai | 185 | 139.5 | 89,305 | 53 | 3,400 |
| Niihau | 191 | 72.8 | 46,575 | 48 | 1,300 |
| Kahoolawe | 3 | 44.2 | 28,260 | 30 | 1,427 |
| Midway | 31 | • • • • • | • • • • • • • | • • • | 43 |
| | 255,912 | 6,406.0 | 4,099,860 | 957 | |

Total Population by Districts and Islands — Comparative, 1910 and 1920.

| Hawaii | 1920 | 1910 | Oahu | 1920 | 1910 |
|--------------|--------|--------|------------------|---------|--------|
| North Hilo | 5,644 | 4,077 | Honolulu | 83,327 | 52,183 |
| South Hilo | 23,828 | 18,468 | Ewa | 17,899 | 14,627 |
| Puna | 7,282 | 6,834 | Waianae | 1,802 | 1,846 |
| Kau | 4,028 | 4,078 | Waialua | 7,641 | 6,083 |
| North Kona | 3,709 | 3,377 | Wahiawa | 4,302 | 799 |
| South Kona | 3,703 | 3,191 | Koolauloa | 4,490 | 3,204 |
| North Kohala | 6,275 | 5,398 | Koolaupoko | 4,035 | 3,251 |
| South Kohala | 1,304 | 922 | | | - |
| Hamakua | 9,122 | 9,037 | | 123,496 | 81,993 |
| | 64,895 | 55,382 | Midway | 31 | 35 |
| 7.5 | 01,000 | 00,004 | Kauai | | |
| Maui | 7.140 | 4.505 | Waimea | 8,672 | 7,987 |
| Lahaina | 7,142 | 4,787 | Niihau | | 208 |
| Wailuku | 14,941 | 11,742 | Koloa | | 5,769 |
| Hana | 3,100 | 3,241 | Kawaihau | 4,533 | 2,580 |
| Makawao | 10,900 | 8,855 | Hanalei | 2,549 | 2,457 |
| | 36,083 | 28,625 | Lihue | 6,223 | 4,951 |
| Molokai | 1,784 | 1,791 | • | 29,438 | 23,952 |
| Lanai | 185 | 131 | Total whole gr'p | 255,912 | |

Comparative Table of Population, Hawaiian Islands— Census Period 1866-1920.

| 'Islands | 1866 | 1872 | 1878 | 1884 | 1890 | 1900 | 1910 | 1920 |
|--|---------------------|-------------------------------------|------------------|--------|--------------------------------------|------------------|--------------------------------------|---------------------------------------|
| Hawaii Maui Oahu Kauai | 14,035 19,799 | 16,001 12,334 20,671 4,961 | 12,109 29,236 | 15,970 | 26,754 17,357 31,194 11,643 | 24,797 58,504 | 55,382 28,623 81,993 23,744 | 64,895 36,080 123,496 29,247 |
| Molokai. Lanai Niihau Kahoolawe Midway | 2,299 394 325 | 2,349 348 | 2,581 214 | } 2614 | 2,652 174 216 | 2,504 619 | 1,791 131 208 2 35 | 1,784 185 191 3 |
| Total | 62,959 | 56,897 | 57,985 | 80,578 | 89,900 | 154,001 | 191,909 | 255,912 |
| All Foreigners | 4,194 | 5,366 | 10,477 | 36,346 | 49,368 | 116,366 | 153,362 | 214,162 |
| Hawaiians | 58,765 | 51,531 | 47,508 | 44,228 | 40,622 | 37,635 | 38,547 | 41,750 |

Population of Islands, and of Honolulu and Hilo by Race and Sex, 1920.

From Tables of the Bureau of Census.

| | All Is | lands | Hon | olulu | Hilo | | |
|------------------|---------|---------|--------|--------|-------|--------|--|
| Races | Males | Fem'ls | Males | Feml's | Males | Fem'ls | |
| Hawaiian | 11,990 | 11,733 | 4,190 | 4,269 | 395 | 394 | |
| Caucasian-Hawn | 5,528 | 5,544 | 2,891 | 3,079 | 239 | 249 | |
| Asiatic-Hawn | 3,524 | 3,431 | 1,579 | 1,523 | 166 | 176 | |
| Portuguese | 13,737 | 13,265 | 4,941 | 5,037 | 916 | 920 | |
| Porto Rican | 3,133 | 2,469 | 430 | 411 | 62 | 60 | |
| Spanish | 1,326 | 1,104 | 333 | 303 | 26 | 30 | |
| Other Caucasian. | 12,309 | 7,399 | 7,591 | 5,079 | 386 | 305 | |
| Chinese | 16,197 | 7,310 | 8,428 | 4,955 | 456 | 206 | |
| Japanese | 62,644 | 46,630 | 13,490 | 11,032 | 2,728 | 2,121 | |
| Korean | 3,498 | 1,452 | 843 | 476 | 56 | 37 | |
| Filipino | 16,851 | 4,180 | 1,660 | 453 | 372 | 113 | |
| All other | 409 | 249 | 201 | 133 | 9 | 9 | |
| Total | 151,146 | 104,766 | 46,577 | 36,750 | 5,811 | 4,620 | |

Birth, by Countries, of Population, Territory of Hawaii, Census of 1920.

| Race | Number | Race | Number |
|--------------------------|---------|---------------------|---------|
| Hawaii | 136,349 | Italy | 60 |
| Philippine Islands | 18,728 | Japan | 60,690 |
| Porto Rico | 2,581 | Korea | 3,498 |
| U.S. exclusive of above. | 10,816 | Norway | 141 |
| Atlantic Islands | 121 | Pacific Islands | 170 |
| Australia | 159 | Poland | 58 |
| Austria | 124 | Portugal | 5,794 |
| Canada | 472 | Russia | 342 |
| China | 11,164 | Scotland | 667 |
| Denmark | 83 | Spain | 1,396 |
| England | 747 | Sweden | 108 |
| France | 112 | Switzerland | 50 |
| Ireland | 204 | All other countries | 438 |
| | | Total | 255,912 |

Hawaii's Annual Federal Taxation.

| Sources. | 1919 | 1920 | 1921 |
|--------------------------|--------------------|-----------|---------|
| Internal Revenue Office1 | 858,258 227,152 | 1,172,394 | 303,227 |

¹Fiscal Year returns. 2Figures for Calendar Year. 3Half Year only.

Population in 1920 by Age Groups, Sex and Race.

| | Unde | er 20 | 20 to 39 | Years | 40 Years or over | | |
|-------------------|--------|--------|----------|--------|------------------|--------|--|
| Races | Males | Fem'ls | Males | Feml's | Males | Fem'ls | |
| Hawaiian | 4,698 | 4,814 | 3,699 | 3,856 | 3,589 | 3,057 | |
| Caucasian-Hawn. | 3,461 | 3,421 | 1,354 | 1,518 | 712 | 604 | |
| Asiatic-Hawaiian. | 2,556 | 2,428 | 676 | 781 | 289 | 218 | |
| Portuguese | 7,851 | 7,703 | 3,559 | 3,095 | 2,322 | 1,860 | |
| Porto Rican | 1,580 | 1,544 | 800 | 575 | 749 | 349 | |
| Spanish | 791 | 683 | 245 | 267 | 290 | 154 | |
| Other Caucasian. | 3,244 | 2,131 | 5,765 | 3,105 | 3,286 | 2,156 | |
| Chinese | 4,785 | 4,490 | 2,685 | 1,969 | 8,717 | 850 | |
| Japanese | 25,309 | 23,483 | 18,266 | 16,409 | 19,053 | 6,732 | |
| Korean | 808 | 765 | 1,112 | 495 | 1,568 | 192 | |
| Filipino | 2,550 | 2,040 | 12,929 | 1,922 | 1,360 | 217 | |
| All other | 149 | 166 | 123 | 50 | 137 | 33 | |
| Total | 57,782 | 53,668 | 51,213 | 34,642 | 42,072 | 16,422 | |

Comparative Race Population of Hawaii, 1920-1910.

Courtesy Census Bureau, Washington, D. C.

| RACE | 1920 | 1910 | Increase since 1910 |
|--------------------|---------|---------|------------------------|
| The Territory | 255,912 | 191,909 | 64,003 |
| Hawaiian | 23,723 | 26,041 | *2,318 |
| Asiatic-Hawaiian | 6,955 | 3,734 | 3,221 |
| Caucasian-Hawaiian | 11,072 | 8,772 | 2,300 |
| Portuguese | 27,002 | 22,301 | 4,701 |
| Porto Rican | 5,602 | 4,890 | 712 |
| Spanish | 2,430 | 1,990 | 440 |
| Other Caucasian | 19,708 | 14,867 | 4,841 |
| Chinese | 23,507 | 21,674 | 1,833 |
| Japanese | 109,274 | 79,675 | 29,599 |
| Filipino | 21,031 | 2,361 | 18,670 |
| Korean | 4,950 | 4,533 | 417 |
| Negro | 348 | 695 | *347 |
| All other | 310 | 376 | *66 |

^{*}Decrease.

Of the total increase since 1910 in the population of the Territory as a whole (64,003), as shown by the above statement, the Japanese and Filipinos contributed fully three-fourths,—29,599 and 18,670, respectively. The figures show a considerable decrease since 1910 in the number of pure-blood Hawaiians—from 26,041 in 1910 to 23,723 in 1920—but a large gain in part-Hawaiians.

the number of pure-blood Hawaiians—from 26,041 in 1910 to 23,723 in 1920—but a large gain in part-Hawaiians.

Of the total population of Hawaii in 1920, the males numbered 151,146, or 59.1 per cent, and the females 104,766, or 40.9 per cent. In 1910 the corresponding figures were: males, 123,099, or 64.1 per cent; females, 68,810, or 35.9 per cent. The ratio of males to females was 144.3 to 100 in 1920, as against 178.9 to 100 in 1910.

AGRICULTURAL PRODUCTS, COMPARATIVE, 1919-1909.

| Principal Crops. | 1919 | 1909 | |
|------------------|---------|--------------|--------------|
| Sugar cane | .acres | 123,165 | 186,230 |
| | tons | 4,862,707 | 4,240,238 |
| | value | \$37,558,265 | \$26,305,747 |
| Pineapples | .plants | 100,222,788 | 23,267,929 |
| | pounds | 299,981,433 | |
| | number | | 12,361,695 |
| | value | \$3,545,385 | \$331,162 |
| Bananas | | 160,953 | 333,069 |
| | value | \$138,306 | \$103,490 |
| Coconuts | | 161,123 | 136,827 |
| | value | \$8,607 | \$2,522 |
| Grapes | | 107,710 | 229,643 |
| | value | \$4,396 | \$4,579 |
| Corn | | 6,027 | 3,190 |
| | pounds | 6,447,273 | 4,691,675 |
| Describe | value | \$216,018 | \$53,337 |
| Peanuts | | 75 | 20 |
| | pounds | 122,328 | 35,070 |
| 0.00 (1 | value | \$12,212 | \$1,684 |
| Coffee (cherry) | | 5,687 | 3,727 |
| | pounds | 19,883,650 | 9,834,026 |
| | value | \$741,315 | \$213,085 |
| Coarse forage | | 850 | 593 |
| | tons | 14,775 | 6,106 |
| Detates | value | \$112,495 | \$41,300 |
| Potatoes | | 405 | 353 |
| | pounds | 1,366,379 | 973,205 |
| Cweet petatoes | value | \$33,688 | \$15,286 |
| Sweet potatoes | | 232 | 270 |
| | pounds | 1,300,783 | 1,210,389 |
| | value | \$23,728 | \$12,791 |

Illiterates in the Population, Territory of Hawaii, 10 Years of Age and Over, Census of 1920.

The Census Bureau Classes as illiterate any person ten years of age, or over, who is unable to write, regardless of ability to read.

| Race | Per Cent | Race | Per Cent |
|------------------|----------|------------------|----------|
| Hawaiian | 3.0 | Other Caucasian. | 0.8 |
| Caucasian-Hawaii | ian 0.6 | Chinese | 21.0 |
| Asiatic-Hawaiian | 1.1 | Japanese | 20.8 |
| Portuguese | 18.9 | Korean | 17.3 |
| Porto Rican | 46.7 | Filipino | 46.7 |
| Spanish | | All other | 14.7 |

FARMS AND FARM PROPERTY, COMPARATIVE, 1920-1910.

| Farms and Acreage. | 1920 | 1910 |
|---------------------------|---------------|--------------|
| Number of farms | 5,284 | 4,320 |
| Operated by: | | |
| White farmers | 892 | 753 |
| Owners | 627 | 516 |
| Managers | 94 | 119 |
| Tenants | 171 | 118 |
| Hawaiian | 679 | 463 |
| Owners | 546 | 354 |
| Managers | 14 | 22 |
| Tenants | 119 | 87 |
| Japanese | 3,098 | 2,138 |
| Owners | 188 | 42 |
| Managers | 11 | 43 |
| Tenants | 2,899 | 2,053 |
| Chinese | 560 | 876 |
| Owners | 56 | 43 |
| Managers | 7 | 55 |
| Tenants | 497 | 778 |
| Other races | 55 | 90 |
| Land in farms: | | |
| Total, acres | 2,702,245 | 2,590,600 |
| Improved, acres | 435,242 | 305,053 |
| Average acreage per farm: | , | 222,123 |
| Total | 511.4 | 599.7 |
| Improved | 82.4 | 70.6 |
| Values all farm property | \$151,129,085 | \$96,363,229 |
| Land and buildings | 129,131,324 | 82,931,701 |
| Implements and machinery | 14,744,916 | 9,024,328 |
| Live-stock | 7,252,845 | 4,407,200 |

Selections Census Tables, Hawaii, 1920. Live-stock and Products.

| DOMESTIC ANIMALS | Total | Value |
|-----------------------|-----------|-------------|
| Horses | 24,307 | \$1,144,689 |
| Mules | 10,542 | 1,041,115 |
| Asses and burros | 2,144 | 21,132 |
| Cattle: Beef | 129,814 | 3,717,836 |
| Dairy | 18,895 | 564,543 |
| Sheep | 44,042 | 140,406 |
| Goats | 4,904 | 8,009 |
| Swine | 38,940 | 397,463 |
| Carabaos | 193 | 8,195 |
| Poultry | 78,697 | 128,197 |
| Bees, hives of | 14,628 | 81,260 |
| LIVE-STOCK PRODUCTS | 1 | |
| Milk and Creamgals. | 1,345,602 | 482,871 |
| Butter and cheeselbs. | 33,781 | |
| Eggs and Chickens | | 212,367 |
| Honey and waxlbs. | 983,456 | 104,709 |
| Woollbs. | | 105,989 |

Births and Deaths by Nationalities and Counties, 1921.

For Fiscal Year ending June, compiled from Board of Health Report.

Table of Births, Marriages and Deaths by Counties.

| Nationality | Oahu Honolulu Other Dist. | | Hawaii Maui | | 11 | Kalawao | | Kauai | | TOTAL | | | | |
|--|--|---|--|--|---|---|---|--|----|-------------------|--|---|--|--|
| | В | D | В | D | В | D | В | D | В | D | В | D | В | D |
| American British Chinese German Hawaiian Part Haw'n. Portuguese Japanese Porto Rican Spanish Russian | 5865 119 94 36 | 24 153 8 306 160 108 382 14 12 4 | 11 316 5 277 359 433 4270 235 170 1 | 2 61 16 22 173 28 11 | 931 1528 6525 462 160 21 | 47 200 36 78 367 23 3 | 782 1004 3326 213 122 15 | 8 42 145 43 59 248 10 5 | 30 | 37 8 4 1 | 59 6 144 23 231 337 583 2661 173 124 6 474 | 4 30 1 54 19 28 144 7 2 | 1681 208 3387 84 3122 5204 5009 22,651 1202 670 79 2304 | 163 43 298 13 803 282 299 1315 82 33 5 |
| Filipino Korean Others Unrecorded | 258 222 52 52 15,770 220 | 24 15 1,386 | 219 4 | 20 3 488 | 212 17 | 24 3 881 | 97 17 6,835 135 | 9 2 610 | 10 | 1 | 121 21 | 10 | 871 111 46.583 1013 | 87 26 3789 |
| Total | 15,990 | 1,386 | 7,285 | 488 | 12,194 | 381 | 6,970 | 610 | 77 | 55 | 5080 | 369 | 47.596 | 3789 |

Vital Statistics, Territory of Hawaii, 1921.

| Islands, Etc. | Est. Popltn. | Births | Marriages | Death s |
|----------------|-----------------|--------|-----------|----------------|
| Honolulu City | 86,929 | 15,990 | 1,303 | 1,386 |
| Other Oahu | 54,190 | 7,285 | 76 | 488 |
| Hilo City | 10,850 | 2,106 | 193 | 266 |
| Hawaii County | 54,870 | 10,088 | 225 | 615 |
| Maui County | 38,350 | 6,970 | 273 | 610 |
| Kalawao County | 561 | 77 | 10 | 55 |
| Kauai County | 30,134 | 5,080 | 188 | 369 |
| Total | 275,884 | 47,596 | 2,268 | 3,789 |

Nationality of Plantation Labor, June 30, 1920-1921.

Courtesy Bureau of Labor and Statistics, Hawaiian Sugar Planters' Ass'n.

| | 1920 | 1921 | | 1920 | 1921 |
|--------------|-------|-------|-----------|--------|--------|
| Americans | 876 | 878 | | 7 | 17,446 |
| Spanish | 313 | 170 | Chinese | 2,378 | 1,586 |
| Portuguese | 3,086 | 2,500 | Koreans | 1,982 | 1,150 |
| Russians | 17 | 17 | Filipinos | 13,061 | 12,271 |
| Hawaiians | 1,322 | 1,027 | Others | 373 | 383 |
| Porto Ricans | 1,422 | 1,279 | | | |
| | | | Total | 44,285 | 38,707 |

School Statistics, Territory of Hawaii, 1921. From Report of the Superintendent of Public Instruction.

NUMBER OF SCHOOLS, TEACHERS AND PUPILS.

| Class | sloot | | Teacher | s | Pupils | | |
|-----------------------------|-----------|-----------|---------|-------|-----------------|--------|--------|
| | Sch | M. | F. | Total | м. | F. | Total |
| Public Schools Private " | 174 59 | 155 87 | 1,207 | | 21,525 4,004 | | |
| Totals | 233 | 242 | 1,522 | 1,764 | 25,529 | 23,195 | 48,724 |

AGES OF PUPILS IN ALL SCHOOLS.

| Public | Under 6 | 6-9 | 10-15 | Over 15 | Total |
|------------------|--------------------------------------|-----------------------|---------------|--------------|-----------------|
| Hawaii | 122 | 4,726 | 5,392 | 558 | 10,798 |
| MauiOahu | $\begin{array}{c}52\\136\end{array}$ | $\frac{2,864}{7,609}$ | 3,017 $9,632$ | 215 1,667 | 6,148 19,044 |
| Kauai | 78 | 2,283 | 2,657 | 143 | 5,161 |
| Total Private | 388 | 17,482 | 20,698 | 2,583 | 41,151 |
| Hawaii | 154 | 270 | 409 | 90 | 923 |
| Maui | 355 | 299 | 432 | 79 | 1,165 |
| Oahu | 964 | 1,354 | 2,143 | 1,024 | 5,485 |
| Total | 1,473 | 1,923 | 2,984 | 1,193 | 7,573 |

NATIONALITY OF PUPILS.

| Races | Public | Races | Public |
|--|--|--|---|
| Hawaiian Part Hawaiian Anglo-Saxon Scandinavian Portuguese Filipinos | 3,966 6,097 2,503 3 6,457 1,174 | Spanish Chinese Japanese Porto Rican Korean Other Foreigners | 398 4,974 20,608 1,199 898 447 |
| | | Total | 48,724 |

Pearl Harbor Areas

| West Loch | 1,110 | acres |
|----------------------|-------|-------|
| East Loch | 1,395 | 6 + |
| Middle Loch | 1,185 | 6.6 |
| S. E. Loch | 450 | 4.6 |
| Entrance and Channel | 1,030 | 6. |
| | | |
| Total water area | 5,170 | 4.6 |
| Area of Ford Island | 350 | 66 |

Value Domestic Mdse. Shipments to the United States from Hawaii for Fiscal Years Ending June 30, 1920 and 1921.

Compiled from Monthly Summary of Commerce and Finance, Bureau of Statistics.

| Articles. | 1920 | 1921 |
|--|-------------|---------------|
| Animals | 9,727 | \$ 6,800 |
| Bones, hoofs, etc | 2,887 | 728 |
| Beeswax | 11,056 | 8,196 |
| Breadstuffs | 19,928 | 19,047 |
| Chemicals, drugs, etc | 10,725 | 39,391 |
| Coffee | 510,404 | 529,769 |
| Fibers, unmanufactured—Sisal | 97,010 | 16,620 |
| Fish canned | 279,380 | 116,996 |
| Fruits and nuts | | |
| Bananas | 138,192 | 166,526 |
| Pineaples | 32,949 | 26,098 |
| Canned Pines | 18,869,449 | 29,745,818 |
| Prepared or preserved | | 19,929 |
| Nuts | 12,865 | 23,576 |
| Hides and skins | 386,149 | |
| Honey | 200,452 | 71,767 |
| Household and personal effects | 2,240 | 700 |
| Meat products, tallow | 32,661 | 17,437 |
| Molasses | 491,815 | 618,874 |
| Musical instruments | 35,382 | 15,415 |
| Paper and manufactures of | 4,035 | 5,214 |
| Pineapple juice | 58,169 | 69,517 |
| Rice | 208,590 | 59,923 |
| Straw and palm leaf, manufactures of | 1,775 | 4,017 |
| Sugar, brown | 116,420,795 | 91,048,269 |
| Sugar, refined | 2,540,761 | 2,583,396 |
| Tobacco leaf, unmanufactured | 8,202 | 1,438 |
| Vegetables | 56,301 | 37,381 |
| Wool, raw | 138,673 | 101,756 |
| Wood and manufactures of | 25,852 | 35,065 |
| All other articles | 10,850 | 101,294 |
| Total value shipments Hawaiian products. | 140,654,816 | 125,661,585 |
| Returned shipments merchandise | 1,482,147 | 1,967,125 |
| Total foreign merchandise | 109,040 | 64,169 |
| Total shipments merchandise | 142,246,003 | \$127,692,879 |

Value Foreign Imports to March 31, 1921.

| Bags | | Food Supplies \$ 5,203,576 Spirits 4,327 |
|-------------|---------|---|
| Coal | 675,722 | Other 2,951,056 |
| Cottons | 534,808 | |
| Fertilizers | | Total\$12,561,879 |

Import Values from United States, Comparative, for Fiscal Years Ending June, 1920 and 1921.

Compiled from Monthly Summary of Foreign Commerce, Bureau of Statistics.

| A = 42 -1 | Domestic N | Domestic Merchandise | | |
|--|------------|----------------------|--|--|
| Articles. | 1920 | 1921 | | |
| Agricultural Implements | \$ 301,187 | \$ 388,214 | | |
| Animals | 240,468 | 492,570 | | |
| Automobiles and parts of | 3,018,708 | 4,288,290 | | |
| Books, Maps, Engravings, etc | 508,756 | 850,080 | | |
| Boots and Shoes | 1 106 839 | 966,507 | | |
| Brass, and manufactures of | 228,338 | 311,212 | | |
| Breadstuffs | 3 956 245 | 3,883,755 | | |
| Brooms and Brushes | 76,442 | 98,180 | | |
| Carriages, Cars, etc., and parts of | 239,038 | 408,038 | | |
| Cement | 578,641 | 659,263 | | |
| Chemicals, Drugs, Dyes, etc | 1,135,624 | 1,088,069 | | |
| Clocks, Watches, and parts of | 74,896 | 242,008 | | |
| Coal | 234,911 | 76,821 | | |
| Cocoa and Chocolate | 108,859 | 119,451 | | |
| Coffee | 50,271 | 18,105 | | |
| Confectionery | 318,718 | 465,028 | | |
| Copper, and manufactures of | 210,822 | 339,670 | | |
| Cotton, manufactures of, and clothing | 4,040,365 | 4,737,957 | | |
| Earthen, Stone and Chinaware | 251,955 | 665,861 | | |
| Eggs | 238,573 | 528,506 | | |
| Electrical Machinery and Instruments | 1,171,259 | 2,063,121 | | |
| Explosives | 125,352 | 109,627 | | |
| Fertilizers | 1,872,807 | 2,524,606 | | |
| Fibers, Textile Grasses, manufactures of | 333,146 | 759,499 | | |
| Fish | 826,623 | 1,049,257 | | |
| Fruits and Nuts | 733,627 | 1,160,158 | | |
| Furniture of Metal | 136,843 | 224,517 | | |
| Glass and Glassware | 337,551 | 506,140 | | |
| Hay | 186,138 | 211,407 | | |
| Household and Personal Effects | 96,432 | 156,078 | | |
| India Rubber, manufactures of | 1,536,117 | 1,710,641 | | |
| Instruments, etc., for scientific purposes | 82,926 | 132,294 | | |
| Iron and Steel, and manufactures of | 840,396 | 939,143 | | |
| Sheets and Plates, etc | 299,053 | 622,842 | | |
| Builders' Hardware, etc | 151,905 | 197,141 | | |
| Machinery, Machines, parts of | 1,928,935 | 3,119,220 | | |
| Nails, Spikes, Pipes, etc | 3,297,216 | 5,690,307 | | |
| Jewelry and manufactures, Gold and Silver | 132,188 | 336,039 | | |
| Lamps, Chandeliers, etc | 41,115 | 57,883 | | |
| Lead and manufactures of | 141,297 | 99,428 | | |
| Leather and manufactures of | 356,576 | 394,792 | | |
| Musical Instruments | 135,545 | 254,341 | | |

Import Values From United States for 1920-1921—Continued.

| ! | Domestic M | [erchandise |
|--------------------------------------|--------------|--------------|
| Articles. | 1920 | 1921 |
| Naval Stores | \$ 50,290 | 35,544 |
| Oil Cloth | 41,103 | 52,318 |
| Oils: Mineral, Crude | 753,836 | 1,336,651 |
| Refined, and Residuum, etc | 6,324,867 | 8,288,461 |
| Vegetable | 237,322 | 150,237 |
| Paints, Pigments and Colors | 607,497 | 619,044 |
| Paper and manufactures of | 1,008,672 | 1,287,547 |
| Perfumery, etc | 134,899 | 287,385 |
| Phonographs, etc | 76,782 | 207,574 |
| Photographic Goods | 179,304 | 264,382 |
| Provisions, etc., Beef Products | 153,803 | 439,526 |
| Hog and other Meat Products | 1,043,889 | 1,565,278 |
| Dairy Products | 1,476,270 | 1,730,782 |
| Rice | 2,153,002 | 1,176,424 |
| Roofing Felt, etc | 74,434 | 102,623 |
| Salt | 35,478 | 31,125 |
| Silk and manufactures of | 472,336 | 536,012 |
| Soap: Toilet and other | 365,617 | 501,209 |
| Starch | 38,658 | 12,246 |
| Straw and Palm Leaf, manufactures of | 171,421 | 223,381 |
| Sugar, Molasses and Syrup | 151,474 | 555,148 |
| Tea | 24,791 | 20,022 |
| Tin and manufactures of | 2,720,655 | 3,743,980 |
| Tobacco, manufactures of | 1,377,905 | 2,108,912 |
| Toys | 94,162 | 163,708 |
| Vegetables | 781,578 | 967,548 |
| Wood and Mftrs.: | | |
| Lumber, Shingles, etc. | 2,087,817 | 2,215,810 |
| Shooks, box | 1,345,110 | 924,754 |
| Doors, Sash, Blinds | 163,629 | 205,019 |
| Furniture | 352,010 | 557,572 |
| Trimmings, Molding and other manfrs | 561,715 | 774,168 |
| Wool and manufactures of | 814,802 | 1,144,634 |
| All other articles | 1,703,845 | 2,149,024 |
| | | |
| Total value merchandise shipments | \$59,261,621 | \$77,324,114 |

Coin Shipments, Import, Year Ending June 30, 1921.

| | Gold | Silver |
|------------------------|--------|-----------|
| Ore and base bullion\$ | 1,125 | \$ 286 |
| Bullion, refined 8 | | |
| Coin, domestic 45 | 51,506 | 161,825 |
| | | |
| \$58 | 36,706 | \$162,111 |

Quantity and Value of Principal Articles of Domestic Produce Shipped for the Fiscal Year Ending June 30, 1921.

Compiled from Monthly Summary of Foreign Commerce, and Customs Tables.

| Articles | | Quantity | Value |
|------------------------------|---------|-------------|---------------|
| Sugar, raw | pounds | 957,655,652 | \$ 91,102,742 |
| Sugar, refined | " | 20,426,775 | 2,583,396 |
| Coffee | " | 3,573,521 | 615,618 |
| Rice | " | 735,233 | 60,329 |
| Fibers, sisal | tons | 75 | 16,626 |
| Fish, canned | | | 116,996 |
| Fruits: Fresh Bananas | bunches | 171,205 | 166,526 |
| Fresh Pineapples | | | 26,098 |
| Canned Pineapples | | | 29,745,818 |
| All Other | | | 19,929 |
| Nuts | | | 23,576 |
| Fruits and Nuts* | | | 915,502 |
| Pineapple Juice | | | 69.547 |
| Beeswax | pounds | 27,097 | 8.196 |
| Honey | pounds | 730,298 | 71,767 |
| Molasses | gallons | 10.963,327 | 618,874 |
| Hides and Skins | pounds | 1,336,214 | 170,598 |
| Wool, raw | pounds | 225,731 | 101,756 |
| Lumber: Boards, etc | M ft | 105 | 23,353 |
| Tobacco: Unmanufactured leaf | pounds | 2,672 | 1,438 |

^{*}Shipments Foreign.

Hawaiian Imports and Exports for Year Ending March 31, 1921.

Courtesy of Collector of Customs.

| Countries: | Imports to March 31. | Exports to March 31. |
|--|----------------------|-------------------------|
| Australia | \$ 679,238 | \$ 41,584 |
| Br. Oceania | 13,451 | 109,199 |
| Br. India | 940,740 | 1,461 |
| Canada | 121,325 | 739,645 |
| Chile | 1,692,923 | |
| England | 257,654 | 31 |
| France | 11,633 | |
| Hongkong | 948,268 | 16,982 |
| Japan | 6,705,679 | 132,701 |
| Scotland | 7,537 | |
| Other | 1,183,433 | 2,505,405 |
| | \$ 12,561.879 | \$ 3,547,008 |
| United States, fiscal year ending June 30. | 77,324.114 | 127,692,879 |
| Totals | \$ 89,885,993 | \$131,239,887 |

Arrivals and Departures of Shipping for Fiscal Year Ending June, 1921.

Compiled from Board of Harbor Commissioners Report.

| | Honolulu | | | | H | Hilo | |
|--------|----------|-----------|------|--------|---------|---------|--|
| Months | , , | Steam | Sail | | Vessels | | |
| | No. | Tons | No. | Tons | No. | Tons | |
| July | 66 | 471,359 | 6 | 5,192 | 7 | 31,246 | |
| Aug | 68 | 452,798 | 3 | 5,490 | 9 | 44,909 | |
| Sept | 69 | 556,270 | 5 | 3,959 | . 19 | 187,874 | |
| 9 Oct | 70 | 439,388 | 4 | 5,352 | 11 | 62,423 | |
| Nov | 55 | 352,608 | 3 | 2,246 | 7 | 34,514 | |
| Dec | 59 | 378,112 | 3 | 1,711 | 8 | 55,473 | |
| Jan | 61 | 379,147 | 2 | 2,506 | 13 | 41,945 | |
| Feb | 50 | 326,986 | 4 | 2,129 | 9 | 47,815 | |
| Narch | 60 | 258,104 | 4 | 3,010 | 6 | 55,798 | |
| April | 52 | 374,842 | 5 | 8,468 | 13 | 66,596 | |
| May | 46 | 321,869 | 6 | 4,578 | 13 | 43,092 | |
| June | 52 | 373,991 | 1 | 950 | 10 | 54,311 | |
| Total | 708 | 4,685,474 | 46 | 45,591 | 127 | 725,996 | |

Kahului reports 79 vessels, of 436,379 tons. Port Allen reports 41 vessels, of 195,249 tons.

Passengers to and From Hawaii, Fiscal Year, 1921.

Courtesy R. L. Halsey, Immigration Service.

| | Aliens | | Citizens | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|--------|
| | Arrivals | Depart. | Arrivals | Depart. | Total |
| Foreign | 1,165 *3,629 | 1,862 *4,085 | 1,154 *58 | 1,639 *2,363 | |
| Mainland | 741 | 1,186 | †2,052 9,690 | †34 10,062 | 18,041 |
| Insular Possessions | *69 | *105 17 | †2 101 | †283 683 | 22,138 |
| | | | †1,281 | †1,461 | 3,555 |
| | 5,616 | 7,255 | 14,338 | 16,525 | 43,734 |

Note: *Japanese †Filipinos.

Export Value Pineapple Products to Mainland.

| | 1918 | 1919 | 1920 | 1921 |
|--|---------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| Fresh Pineapples Canned Pineapples Pineapple Juice | \$ 10,236 8,394,307 2,604 | \$ 16,057 11,989,611 2,420 | \$ 32,949 18,869,449 58,169 | \$ 26,098 29,745,818 69,517 |
| Total | \$8,407,147 | \$12,008,088 | \$18,960,567 | \$29,841,433 |

Hawaiian Sugar Export Statistics from 1910.

For earlier years see Annuals 1896-1914.

| Year | S | ugar | Molass | Ttl. export Value | |
|------|---------------|--------------|------------|----------------------|-------------|
| 100. | Pounds | Value | Gallons | Value | value |
| 1910 | 1,111,594,466 | \$42,625,062 | 100 | 7 | 42,625,069 |
| 1911 | 1,011,215,858 | 36,704,656 | 1,801,796 | 89,708 | 36,794,364 |
| 1912 | 1,205,465,510 | 49,961,509 | 1,734,318 | 77,241 | 50,038,750 |
| 1913 | 1,085,362,344 | 36,607,820 | 3,736,877 | 140,610 | 36,748,430 |
| 1914 | 1,114,750,702 | 33,187,920 | 4,110,404 | 149,597 | 33,337,517 |
| 1915 | 1,280,917,435 | 52,953,009 | 5,202,913 | 195,485 | 53,148,594 |
| 1916 | 1,137,164,228 | 54,418,300 | 8,399,014 | 327.284 | 54.745.584 |
| 1917 | 1,162,805,056 | 62,741,164 | 10,979,383 | 392,110 | 63,133,274 |
| 1918 | 1,080,908,797 | 64,108,540 | 14,671,477 | 634,671 | 64,743,211 |
| 1919 | 1,215,594,766 | 75,511,738 | 11,065,996 | 591,490 | 76,103,228 |
| 1920 | 1,056,413,393 | 118,998,848 | 9,605,486 | 491.815 | 119,490,663 |
| 1921 | 978,082,427 | 93,686,138 | 10.963.327 | 618,874 | 94,305,012 |

Hawaii's Annual Trade Balance, etc., from 1910.

| Year | Imports | Exports | Excess export Values | Custom house Receipts |
|------|------------|-------------|----------------------------|-----------------------------|
| 1910 | 26,152,435 | 47,029,631 | 20,877,196 | 1,450,324 |
| 1911 | 28,065,626 | 42,666,197 | 14,600,571 | 1,654,761 |
| 1912 | 28,694,322 | 55,449,438 | 26,755,116 | 1,643,197 |
| 1913 | 37,519,620 | 43,471,830 | 5,952,210 | 1.869.513 |
| 1914 | 31,550,257 | 41,594,072 | 6,043,815 | 1.184,416 |
| 1915 | 26,416,031 | 62,464,759 | 36,048,728 | 1.019.534 |
| 1916 | 34,098,210 | 64,670,852 | 30,572,642 | 1.161.051 |
| 1917 | 46,358,341 | 75,115,983 | 28,757,642 | 1.169.085 |
| 1918 | 51,801,204 | 80,545,606 | 28,744,402 | 1.009.243 |
| 1919 | 51,895,113 | 98,859,311 | 46,964,198 | 858,258 |
| 1920 | 68,876,094 | 145,831,074 | 76,954,980 | 1,172,394 |
| 1921 | 89,885,993 | 131,239,887 | 41,353,894 | 1,426,716 |

Receipts, Expenditures, and Public Debt of Hawaii, from 1910. (From Official Reports.)

| Years | Revenue | Expenditures | Cash Balance in Treasury | Public Debt |
|--------------|----------------|----------------|-----------------------------|----------------|
| 1910 | \$3,641,245.35 | \$3,435,082.87 | \$845,218.51 | \$4,079,000.00 |
| 1911 | 3,482,560.84 | 3,730,765.16 | 822,282.07 | 4,004,000.00 |
| 1912 | 3,963,588.55 | 4,002,483.00 | 690,550.70 | 5,454,000.00 |
| 1 913 | 4,300,780,71 | 4,261,468.66 | 716,729.60 | 6,844,000.00 |
| 1914 | 3,925,187.95 | 4,263,863.64 | 366,001.24 | 6,844,000.00 |
| 1915 | 4.539,241.04 | 4.446.415.65 | 464,040.43 | 7,873,500.00 |
| 1916 | 5,626,905.33 | 5,553,700.66 | 539,388.71 | 8,024,000.00 |
| 1917 | 5,944,352,95 | 5,638,429.13 | 889 508.42 | 7,874,000.00 |
| 1918 | 7,208,047.73 | 7,441,043,45 | 711.517.21 | 8,749,000.00 |
| 1919 | 7.921.671.90 | 8.140,768,79 | 442,609.95 | 9,194,000.00 |
| 1920 | 10,925,406.97 | 10,849,601.12 | 506,334.53 | 10,894,000.00 |
| 1921 | 13,776,308.00 | 13.243,048.93 | 1,064,827.26 | 12,600.000.00 |

Hawaiian Corporations, 1921.

Tables Courtesy of Treasury Department.

| Class. | Total No. | | Numbe Incorporated Au | Total | | |
|---------------|--------------|-----|-----------------------------|-------|---------------|---------------|
| | | No. | Before | No. | After | |
| Agriculture . | 154 | 45 | \$49,716,750 | 109 | \$ 38,775,015 | \$ 88,491,765 |
| Mercantile . | 573 | 35 | 18,903,285 | 538 | 71,538,988 | 90,442,273 |
| Railroad | 10 | 5 | 7,370,000 | 5 | 7,759,960 | 15,129,960 |
| Street Car | 2 | | | 2 | 1,950,000 | 1,950,000 |
| Steamship | 3 | 1 | 3,000,000 | 2 | 206,000 | 3,206,000 |
| Bank | 10 | 1 | 600,000 | 9 | 2,950,000 | 3,550,000 |
| Sav. & Loan | 23 | | | 23 | 1,915,000 | 1,915,000 |
| Trust | 8 | 1 | 500,000 | 7 | 1,600,000 | 2,100,000 |
| Insurance | 2 | | | 2 | 250,000 | 250,000 |
| Total | 785 | 88 | \$80,090,035 | 697 | \$126,944,963 | \$207,034,998 |

Growth of Bank Deposits, Territory of Hawaii.

| Fiscal Year— | No. Banks | Commercial Deposits | Savings Deposits | Total |
|--------------|---|--------------------------------|-------------------------------|--------------------------------|
| 1910 | 11 | 9,033,385.97 | 4,290,919.57 | 13,324,305.54 |
| 1911 | 16 | 10,289,707.89 | 5,020,555.62 | 15,310,263.51 |
| 1912 | 17 17 | 12,667,162.39 | 5,521,973.11 5,384,395.72 | 18,189,135.50 17,026.297.02 |
| 1914 | 18 | 10,371,874.60 | 6,275,790.63 | 16,647,665.23 |
| 1915 | 19 19 | 12,378,041.53 17,317,339.40 | 7,736,569.32 9,061,910.28 | 20,114,610.85 26,379,249.68 |
| 1917 | 22 | 22,486,524.31 | 10,205,496.70 | 32,692,021.01 |
| 19 18 | $\begin{array}{c} 23 \\ 26 \end{array}$ | 24,620,004.80 24,898,287.81 | 9,892,708.08 10,450,846.55 | 34,512,712.88 35,349.134.36 |
| 1920 | 26 | 36,975,335.93 | 15,807,778.11 | 52,783,114,04 |
| 1921 | 31 | 32,545,538.38 | 18,635,866.41 | 51,181,404.79 |

Assessed Values Real and Personal Property (by races) for 1921.

| Taxpayers | Real Property | | Person | nal Property | Total | |
|-----------------|---------------|---------------|--------|---------------|---------------|--|
| Taxpay ers | No. | Assd. Value | No. | Assd. Value | Assd. Value | |
| Corporations | 889 | \$ 98,624,936 | 1,086 | \$109,009,534 | \$207,634,470 | |
| Anglo-Saxon | 3,514 | | | 4,970,233 | 34,559,515 | |
| Hawaiians | 6,586 | 16,680,107 | 2,427 | 2,224,588 | 18,904,695 | |
| Port. & Spanish | 2,850 | 7,616,997 | 1,778 | 1,183,568 | 8,800,565 | |
| Chinese | 1,392 | 4,833,546 | 1,794 | 2,404,968 | 7,238,514 | |
| Japanese | 1,565 | 3,115,625 | 3,774 | 6,304,148 | 9,419,773 | |
| Totals | 16,796 | \$160,460,493 | 13,402 | \$126,097,039 | \$286,557,532 | |

Resources of Hawaii, 1921.

| Population, Territory, census of 1920 | 255,912 |
|---|---------------|
| Assessed valuation, Territory | \$286,557,532 |
| Assessed value of real estate | 160,460,493 |
| Assessed value of personal property | 126,097,039 |
| Assessed value, Honolulu and Oahu | 153,629,094 |
| Assessed value, Honolulu realty | 87,343,322 |
| Assessed value, Honolulu personality | 66,285,772 |
| Corporate-owned property in Territory | 207,634,470 |
| Individually-owned property in Territory | 78,923,062 |
| Amount Insurance carried | 368,141,573 |
| Banks have credits | 51,181,404 |
| Banks have commercial accounts | 32,545,538 |
| Banks have savings accounts | 18,635,866 |
| Corporations (984) are capitalized at | 207,034,998 |
| Estimated market value of shares | 350,000,000 |
| Sugar exports for 1921 (978,082,427 lbs.), tons | 439,541 |
| Value sugar exports, 1921 | 93,686,138 |
| Estimated pineapple pack, 1921 (cases) | 5,500,000 |
| Value pack f. o. b. Honolulu | 29,841,433 |
| Total value Domestic exports | 131,239,887 |
| Total value all imports | 89,885,993 |
| Excess value exports over imports | 41,353,894 |
| Amount of Public Debt | 12,600,000 |
| Total amount year's Revenue | 13,776,308 |
| | |

Summary of Insurance Business, Territory of Hawaii, for 1921.

From Report of Insurance Commissioner.

| Class | Amount Written | Amount Premiums | Losses and Claims paid |
|------------------------------|---|---|--|
| Fire | \$ 98,398,430.53 257,298,092.96 12,445,051.00 | 678,024.58 *1,871,889.50 82,956.50 216,976.46 2,665.32 25,029.12 110,614.68 7,205.59 | 56,254.21 592,516.78 22,724.33 37,286.88 77.00 1,869.54 4,361.44 2,647.91 |
| Workmen's Compensation Other | \$368,141,573.49 | 239,360.99 163,844.42 \$ 5,070,818.62 | 11,128.02 |

^{*} Of this amount \$1,408,146.66 are renewals.

Hawaii's Bonded Debt, June 30, 1921.

| Public Improvement 3½% Bonds | \$ 494,000 |
|------------------------------|--------------|
| Public Improvement 4% Bonds | 7,680,000 |
| Public Improvement 4½% Bonds | 3,961,000 |
| Public Improvement 5% Bonds | 465,000 |
| Total Bonds outstanding | \$12,600,000 |

Area and Population of Counties, 1920-1910.

| | 1920 | | | 1910 | |
|--------|------------------------------------|--|---------------------------------------|---|---------------------------------------|
| COUNTY | Land area in sq. miles | Total | Per sq. miles | Total | Per cent de- crease |
| Hawaii | 4,015 600 1,182 651 11 | 64,895 123,526 37,385 29,438 667 | 16.2 205.9 31.6 45.9 60.6 | 55,382 82,028 29,762 23,952 785 | 17.2 50.6 25.6 22.9 -15.0 |
| Total | 9,449 | 255,912 | 39.7 | 191,909 | 33.4 |

Races of Tax Payers of Collections for the Year Ending June 30, 1921.

| Anglo-Saxons . | | | 7,829,016.34 |
|----------------|------|------|--------------------------|
| Hawaiians | | | 642,270.58 |
| Japanese | | | 565,042.87 |
| Portuguese and | | | 307,969.32 288,165.92 |
| Chinese | | | 200,100.02 |
| Total | | | 9,632,465.03 |

Domestic Produce to Foreign Countries, year ending March 31, 1921.

| | Pounds | Value |
|-----------------|---------|-------------|
| Sugar | 343,525 | \$ 54,473 |
| Coffee, raw | 391,690 | 85,849 |
| Fruits and Nuts | | 915,502 |
| Rice | 5,100 | 406 |
| Other | | 2,474,970 |
| | | <u> </u> |
| | | \$3,531,200 |

Seating Capacity of Principal Churches, Halls and Places of Amusement—Honolulu.

| Roman Catholic Cathedral, Fort street | 1,500 |
|---|--------|
| Kawaiahao Church (Native), King street | |
| Central Union Church, Beretania street | |
| St. Andrew's Cathedral (Episcopal), Emma street | |
| | |
| The Bijou Theater (now building) | |
| Ye Liberty Theater | 1,600 |
| Empire Theater (moving pictures) | |
| Y. M. C. A. game hall | |
| | |
| Mission Memorial Auditorium | 600 |
| Palama Theater (moving pictures) | 965 |
| | |
| Peoples Theater (now building) | .1,700 |
| | |

1920

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1918

Pack of Hawaiian Canned Pineapple

Compiled from the Records of the Hawaiian Pineapple Packers' Association.

| 1918. |
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| California Packing Corporation 11, | 000 | | | |
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| | 1,002,608 | 1,503,006 | 2,054,238 | |
| | 1,206,107 | 1,620,223 | 1,774,649 | |
| | 952,339 | 1,211,103 | 1,022,241 | |
| | 54,225 | 60,042 | | i |
| | | • | | II |
| Hawaiian Canneries Co. Ltd. | 74,210 | 59,195 | _ | A^{\perp} |
| Kanai Fruit & Land Co. Ltd. | 116,592 | 136,581 | | W |
| Baldwin Packers | 41,702 | 83,223 | | A |
| uit & Packing Co., Ltd. | 399,532 | 398,603 | 633,392 | 77 |
| Pauwela Pineapple Company | | | | A. |
| Total Pack. | 3,847,315 | 5,071,976 | 5,978,182 | N |

Absorbing Maui Pineapple Co. #Amalgamation of Haw. Is. Packing Co. and Haw. Preserving Co. §Absorbing Thomas Pineapple Co. PINEAPPLE COMPANIES OPERATING IN THE HAWAIIAN ISLANDS

| The second secon | The same of the sa | |
|--|--|--|
| Company: Office Location | ion: Manager: | Representatives: |
| Cal Packing Corporation Honolulu, Oahu | H. A. White | Cal. Packing Corporation, San Francisco |
| | James D. Dole | Hawn. Pineapple Co., Ltd., San Francisco |
| Libby. McNeill & Libby of Hon., Ltd. Honolulu, Oahu | L. E. Arnold | Libby, McNeill & Libby, S.F. & Chicago. |
| Pearl City Fruit Co., Ltd Waiawa, Oahu | Jas. Wakefield | T. H. Davies & Co., Honolulu |
| Hawaii Fruit Pkrs., LtdHonolulu | L. Smith Hiorth | Wrumington-Duff, San Francisco. |
| Hawaijan Canneries Co., Ltd Kapaa, Kavai | Albert HornerJ | James F. Morgan & Co., Ltd., Honolulu |
| Kanai Fruit & Land Co. Ltd Lawai, Kauai. | | Alexander & Baldwin, Ltd., Honolulu |
| Baldwin Packers Lahaina, Maui | D. T. Fleming | Alexander & Baldwin, Ltd., Honolulu |
| Haikn Fruit & Packing Co., Ltd Haiku, Maui | A. F. Tavares | Haiku Fruit & Packing Co., Ltd., San Fran. |
| Pauwela Pineapple Co Haiku, Maui | | Pauwela Pineapple Co., San Francisco. |
| Kohala Pineapple CoKohala, Hawaii | Robt. Lister | Prat, Low & Co., San Jose, California. |

Taxes by Division and Counties for the Fiscal Year Ended June 30, 1921.

Courtesy of Auditing Department.

| DIVISION OF TAXES | OAHU | MAUI | HAWAII | KAUAI | TOTALS |
|--------------------------|----------------|----------------|----------------|---------------|----------------|
| Special territorial | \$ 88,154.55 | 60 | • | • | \$ 88,154.55 |
| Real estate | 1,921.068.05 | 661,784.47 | 871,918.32 | 290,487.70 | 3,745,258.54 |
| Personal property | 1,514,145.55 | 501,123.82 | 663,220.24 | 358,764.60 | 3,037,254.21 |
| Penalty | 5,289.85 | 546.22 | 1,468.48 | 141.25 | 7,445.80 |
| Court costs and interest | 8,779.95 | 6,343.13 | 3,966.39 | 932.10 | 20,021.57 |
| Bicycles | 2,622.80 | 1,084.05 | 892.35 | 654.50 | 5,253.70 |
| Automobiles | 173,170.40 | 42,636.53 | 55,379.90 | 29,311,10 | 300,497.93 |
| Carriages, carts, etc | 8,360.00 | 1,875.00 | 3,140.00 | 2,445.00 | 15,820.00 |
| Brakes and sulkies | 246.00 | 46.00 | 176.00 | 94.00 | 562.00 |
| Road tax | 58,615.26 | 20,931.07 | 29,335.21 | 16,470.40 | 125.351.94 |
| Poll tax | 28,725.30 | 10,440.88 | 14,586.91 | 8,219.60 | 61,972.69 |
| Dogs and dog tags | 1,881.17 | 1,123.05 | 1,988.85 | 803.00 | 5,796.07 |
| School tax | 58,060.92 | 20,877.72 | 29,177.37 | 16,416 70 | 124,532.71 |
| Income tax | 913,661.64 | 127,177.07 | 80,605.92 | 27,895.35 | 1,149,339.98 |
| Special income tax | 804,730.40 | 97,292.63 | 31,406.51 | 11,773.80 | 945,203.34 |
| Total | \$5,587,511.84 | \$1,493,281.64 | \$1,787,262.45 | \$ 764,409.10 | \$9,632,465.03 |

TABLE OF RAINFALL, Principal Stations.

Compiled from Weather Bureau Reports.

| | Observer | | | 19 | 20 | | |
|-----------------|------------------|--------------|----------------|-------------|--------------|--------------|-------|
| | | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| HAWAII | | | | | | | |
| Waiakea | Waiakea Mill | 6.47 | 7.94 | 9.66 | 19.77 | 8.31 | 13.18 |
| Hilo (Town) | | | 8.01 | 11.53 | 20.36 | 7.29 | 13.49 |
| Ponahawai | J. E. Gamal'sn | 9.21 | 9.09 | 13.41 | 17.28 | 9.26 | 14.76 |
| Pepeekeo | Pepeekeo S. Co | | 6.53 | 12.36 | 21.62 | 7.06 | 11.67 |
| Hakalau | Hak. Sug. Co | | 6.97 | 11.99 | 20.25 | 8.54 | 5.52 |
| | A. L. Moses | 5.64 | 6.29 | 7.96 | 9.96 | 7.85 | 7.29 |
| Ookala | Kauwiki S. Co | 5.03 | 5.86 | 7.22 | 9.21 | 6.28 | 7.60 |
| Kukaiau Mill | A. R. Philip | 2.16 | 0.57 | 4.51 | 4.80 | 6.17 | 6.58 |
| Paauhau | Paauhau S. Co | 1.25 | 3.40 | 2.57 | 3.21 | 3.72 | 3.83 |
| Honokaa | Hon. Sug. Co | 1.30 | 4.03 | 2.60 | 3.07 | 4.06 | 3.59 |
| Waimea | F. Pinho | 2.26 | 2.71 | 2.27 | 1.34 | 3.79 | 6.51 |
| Kohala | Dr. B. D. Bond | 2.11 | 3.57 | 3.18 | 3.46 | 3.59 | 6.70 |
| Holualoa | Kona Dev. Co | 6.45 | 5.63 | 14.64 | 3.19 | 2.76 | 4.50 |
| Kealakekua | Robt. Wallace | 9.21 | 4.59 | 11.99 | 8.80 | 2.68 | 3.63 |
| Naalehu | Hutch. S. P. Co | 0.82 | 0.78 | 2.36 | 2.37 | 0.55 | 6.70 |
| Pahala | Haw. Agr. Co | 0.76 | 1.73 | 0.59 | 4.08 | 1.03 | 11.41 |
| Volcano Obs | T. A. Jaggar, Jr | | 3.66 | 4.71 | 7.51 | 6.74 | 14.84 |
| Olaa (17 miles) | Olaa Sug. Co | | 10.08 | 11.44 | 17.64 | 13.64 | 13.58 |
| Kapoho | H. J. Lyman | 3.95 | 5.79 | 7.78 | 7.92 | 3.85 | 4.20 |
| 7. | | | | | | | |
| MAUI | | 0.77 | 0.91 | 0.15 | 1 60 | 4.40 | 11 10 |
| Haleakala Ranch | Hal. Ranch Co | 0.77 | $0.21 \\ 2.15$ | 0.15 2.24 | 1.69 | 4.49 9.26 | 9.03 |
| Puuomalei | A. McKibbin | 2.48 1.55 | 0.54 | 0.62 | 2.94 1.96 | 5.13 | 9.05 |
| Makawao | J. E. Tavares | 0.65 | 3.90 | 1.01 | 1.01 | 0.70 | 15.80 |
| | A. von Tempsky | 1.63 | 2.08 | 2.76 | | 6.52 | 8.01 |
| Haiku | Expmnt. Stn | 10.72 | 13.15 | 13.40 | 19.80 | 21.31 | 16.34 |
| Keanae vaney | W. F. Pogue | 0.36 | 0.67 | 0.03 | 2.02 | 1.51 | 7.61 |
| | Bro. Robert | 3.68 | 4.23 | 3.26 | 5.93 | 5.43 | 10.06 |
| Hana | Kaeleku Sug. Co | 0.00 | 1,20 | 0.20 | 0.00 | 0.10 | 10.00 |
| OAHU | | | | | | | |
| Honolulu | U.S. Weath. Bu | 0.40 | 0.75 | 0.32 | 0.85 | 3.53 | 8.72 |
| Kinau Street | W. R. Castle | 0.55 | 1.07 | 0.39 | 1.41 | 4.53 | 8.07 |
| Manoa | Miss C. Hall | 2.51 | 3.98 | 3.19 | 3.97 | 8.59 | 8.48 |
| | A. Walker | 4.90 | 6.65 | 5.39 | 8.37 | 12.88 | 19.60 |
| | L. A. Moore | 7.93 | 11.06 | 8.04 | 10.43 | 14.28 | 17.17 |
| | Ed. Todd | | 1.25 | 0.55 | 2.18 | 3.22 | 11.58 |
| | Jno. Herd | 4.14 | 4.74 | 2.47 | 5.12 | 7.28 | 15.70 |
| | Waial. Agr. Co | 1.66 | 0.78 | 0.70 | 0.67 | 2.24 | 10.65 |
| | H. T. Christfrsn | 3.60 | 2.65 | 2.35 | 2.14 | 1.60 | 7.78 |
| | I. A. Hattie | 0.48 | 0.40 | 0.00 | 0.27 | 0.86 | 12.73 |
| | Surgn. U.S.A | 0.65 | 1.50 | 1.08 | 3.40 | 1.29 | 9.09 |
| | Pearl City F. Co | | | 1.20 | 1.24 | 6.13 | 17.38 |
| Waimalu | Hon. Plan. Co | 2.52 | 1.85 | 0.66 | 1.42 | 3.81 | 10.70 |
| KAUAI | | | | | | | |
| | G. N. Wilcox | 2.92 | 4.67 | 4.86 | 4.14 | 4.81 | 11.13 |
| | Makee Sug. Co | 3.17 | 3.50 | 3.72 | 2.74 | 4.12 | 7.87 |
| Kilauea | Kilauea Sug. Co | 3.76 | 7.42 | 6.00 | 6.39 | 5.76 | 8.48 |
| Eleele | McBryde Sug. Co. | 1.29 | 2.85 | 2.50 | 2.96 | 2.13 | 5.59 |
| Kukuiula | F. S. Christian | 2.17 | 4.50 | 4.05 | 3.45 | 3.80 | 9.15 |
| | A. F. Knudsen | 1.07 | 0.35 | 1.17 | 2.51 | 0.36 | 2.52 |
| - | | | | | - | | |

Throughout the Hawaiian Islands, 1920-1921.

By L. H. Daingerfield, Meteorologist. Continued from last Annual.

| | Elv. | | | | 19 | 921 | | |
|-------------------------|------|-------|---------------------|----------------------|---|------|-------|--------|
| | Ft. | Jan. | Feb. | Mar. | Apr. | May | June | Yea |
| HAWAII | | | | | | | | : |
| Waiakea | 50 | 48.32 | 5.31 | 4.73 | 10.75 | 2.74 | 3.32 | 140.5 |
| Hilo, | 40 | 50.76 | 5.08 | 4.44 | 10.49 | 2.36 | 2.94 | 143.9 |
| Ponahawai | 500 | 65.71 | 4.55 | 5.66 | 12.73 | 6.12 | 3.17 | 170.9 |
| Pepeekeo | 100 | 33.28 | 5.09 | 5.76 | 1.0.24 | 4.14 | 4.25 | 128.7 |
| Hakalau | 200 | 35.94 | 2.50 | 7.60 | 8.62 | 2.30 | 3.02 | 121.1 |
| Laupahoehoe | 110 | 40.41 | 2.82 | 12.53 | 8.29 | 2.06 | 1.27 | 112.6 |
| Ookala | 400 | 39.23 | 3.42 | 10.94 | 8.39 | 3.15 | 1.45 | 107.7 |
| Kukaiau | 260 | 31.48 | 1.80 | 11.23 | 4.29 | 0.66 | 0.43 | 74.6 |
| Paauhau Mill | 400 | 15.94 | 0.73 | 6.81 | 4.75 | 0.56 | 0.19 | 46.9 |
| Honokaa | 460 | 19.00 | 0.75 | 12.40 | 3.79 | 0.37 | 0.22 | 55.1 |
| Waimea | 2700 | 6.63 | 0.65 | 3.51 | 3.73 | 1.78 | 0.93 | 36.1 |
| Kohala Mission | 537 | 14.46 | 3.56 | 5.69 | 5.26 | 0.64 | 1.78 | 54.0 |
| Holualoa | 1450 | 7.60 | 1.49 | 0.50 | 7.20 | 6.26 | 7.79 | 68.0 |
| Kealakekua | 1450 | 8.58 | 2.36 | 1.0 i | 2.66 | 8.87 | 5.17 | 69.5 |
| Naalehu | 650 | 16.42 | 4.00 | 3.18 | 1.64 | 2.08 | 0.45 | 41.3 |
| Pahala | 850 | 16.61 | 2.65 | 3.09 | 1.05 | 3.67 | 0.10 | 46.7 |
| Kilauea Crater | 3984 | 43.96 | 3.73 | 2.19 | 7.63 | 5.32 | 1.52 | 105.73 |
| Olaa, Puna | 1530 | 70.66 | 5.89 | 9.29 | 13.21 | 5.51 | 4.19 | 187.0 |
| Kapoho | 110 | 19.29 | 5.30 | 2.25 | | 2.71 | 3.69 | |
| | 110 | | | | | | | |
| MAUI Haleakala Ranch | 2000 | 9.10 | 1.68 | 4.32 | 2.39 | 0.00 | 0.40 | 0.0 44 |
| | 1 | 13.61 | 2.41 | 10.79 | | 0.00 | 0.48 | 36.40 |
| Puuomalei | 1300 | 12.50 | 1.58 | $\frac{10.79}{5.62}$ | 5.66 3.83 | 1.28 | 1.91 | 63.7 |
| Makawao | 1700 | 4.67 | 1.30 | 0.70 | $\begin{array}{c} 3.83 \\ 3.12 \end{array}$ | 0.33 | 0.89 | 43.50 |
| Erehwon | 4200 | 17.92 | 0.94 | 5.39 | | 3.07 | 0.00 | 35.93 |
| Haiku Exp. Station. | 700 | 51.75 | 3.56 | 17.07 | 17.63 | 2.16 | 1.40 | 100.0 |
| Keanae | 1000 | 5.52 | 1.08 | 3.90 | | 8.36 | 6.11 | 199.20 |
| Wailuku | 200 | 15.75 | 1.50 | 5.54 | 0.70 | 0.70 | 0.11 | 24.2 |
| Hana | 200 | 10.10 | 1.50 | 5,54 | 4.86 | 3.78 | 2.56 | 66.58 |
| OAHU | i | 0.05 | | | | | | |
| U. S. Weather Bu | 111 | 9.97 | 1.15 | 0.39 | 0.73 | 0.37 | 0.32 | 27.50 |
| Kinau Street | 50 | 16.03 | 1.21 | 0.77 | 0.85 | 0.57 | 0.33 | 35.78 |
| Oahu Ave | 210 | 20.07 | 1.90 | 2.29 | 2.92 | 2.52 | 1.45 | 61.87 |
| Nuuanu Elec. Stn | 405 | 42.42 | 3.21 | 3.08 | 9.46 | 6.38 | 2.51 | 124.88 |
| Nuuanu Water Wks. | 881 | 46.10 | 3.24 | 3.87 | 9.52 | 7.54 | 3.87 | 143.08 |
| Waimanalo | 25 | 11.66 | 1.89 | 2.02 | 1.64 | 0.92 | 0.54 | 38.91 |
| Maunawili | 250 | 35.74 | 3.12 | 3.60 | 4.61 | 6.83 | 2.70 | 96.08 |
| Waialua | 30 | 11.46 | 1.81 | 1.73 | 1.40 | 1.20 | 0.79 | 35.09 |
| Kahuku | 25 | 11.18 | 1.47 | 2.62 | 1.78 | 1.69 | 0.46 | 39.32 |
| Ewa | 50 | 7.22 | 1.67 | 0.55 | 0.21 | 0.26 | 0.00 | 24.65 |
| Leilehua | 990 | 9.16 | 2.14 | 1.24 | 0.97 | 1.98 | 0.35 | 32.85 |
| Waiawa | 675 | 14.84 | | | 2.35 | 0.77 | 2.74 | |
| Ewa | 200 | 12.04 | 2.37 | 0.93 | 0.88 | 1.36 | 0.69 | 39.23 |
| TZ A TT A T | | | | | | | | |
| KAUAI Lihuo | 200 | 28.54 | 2.27 | 4.25 | 1.72 | 2.20 | 9 9 1 | 79.00 |
| Lihue | 200 | 22.04 | $\frac{2.27}{1.30}$ | $\frac{4.25}{3.50}$ | 2.85 | | 2.31 | 73.82 |
| Kealia | 15 | 25.03 | | | | 2.28 | 2.37 | 59.46 |
| Kilauea | 342 | | 2.14 | 3.54 | 4.55 | 3.15 | 3.23 | 79.45 |
| Eleele | 150 | 17.98 | 1.05 | 0.71 | 1.15 | 0.97 | 0.92 | 40.10 |
| Koloa Waimea | 100 | 55.62 | 1.20 | 1.85 | 1.00 | 0.60 | 1.20 | 88.59 |
| 14/017000 | 35 | 10.41 | 1.40 | 0.00 | 0.30 | 0.54 | 0.90 | 21.53 |

Summary of Meteorological Observations, Honolulu, 1920-1921.

Weather Bureau Records, by L. H. Daingerfield, Meteorologist. vi · Compiled from U.

(Continued from preceding Annuals.)

| | BAROMETER | ETER | NI V | REL. | ном. | EXTRE TEM- | EXTREME TEM- | 7.47 | MEAN TEMPERATURE | 2011 | | |
|------------|-----------|--------|-------|-------|--------|---------------|-----------------|-----------------------|-----------------------|-----------------------------|---------------|------|
| HENON | | | FALL | | | LEKA | FERAIURE | | T WALL IN | - AND | | |
| | Sa.m. | 8 p.m. | | 3a.m. | 8 p.m. | Max. | Min. | Mean Maxi- mum. | Mean Mini- mum. | Mean of Max. and Min. | Cloud Am't | Wind |
| July | 30.03 | 30.01 | 0.40 | 99 | 29 | 85 | 71 | 83.4 | 73.8 | 78.6 | 6.1 | 8.0 |
| | 30.01 | 29.99 | 0.75 | 99 | 89 | 87 | 72 | 84.3 | 74.6 | 79.4 | 8. | 00 |
| September | 30.02 | 30.00 | 0.32 | 63 | 99 | 98 | 72 | 83.6 | 74.5 | 79.0 | 5.3 | 00 |
| | 30.01 | 30.00 | 0.85 | 99 | 69 | 85 | 69 | 83.0 | 73.0 | 78.0 | 4.0 | 7.9 |
| November | 30.05 | 30.04 | 3.53 | 89 | 29 | 84 | 65 | 79.3 | 69.4 | 74.4 | 5.3 | 8.1 |
| ∪ December | 30.04 | 30.02 | 8.72 | 89 | 72 | 80 | 65 | 78.2 | 69.1 | 73.6 | 4.8 | 9.5 |
| January | 30.03 | 30.03 | 9.97 | 91 | 91 | 80 | 63 | 75.3 | 6.99 | 71.1 | 7.0 | 10.8 |
| February | 30.05 | 30.02 | 1.15 | 74 | 73 | 80 | 63 | 77.9 | 68.4 | 73.2 | 4.1 | 6.9 |
| March | 30.08 | 30.01 | 0.39 | 70 | 89 | 84 | 62 | 77.2 | 67.3 | 72.2 | 6.5 | 8.1 |
| -10 | 30.09 | 30.08 | 0.73 | 65 | 89 | 82 | 63 | 78.8 | 9.69 | 74.2 | 5.5 | 10.5 |
| May | 30.02 | 30.00 | 0.37 | 99 | 20 | 83 | 89 | 80.7 | 70.9 | 75.8 | 6.0 | 6.1 |
| June | 30.04 | 30.02 | 0.32 | 63 | 89 | 98 | 02 | 83.3 | 73.3 | 78.3 | 4.8 | 8.5 |
| | | | 1 | | | | | | | | 1 | - |
| Year | 30.04 | 30.05 | 27.50 | 9.29 | 69.3 | 87 87 | 62 62 | 80.4 | 6.07 | 75.6 | 5.3 | |
| | - | | - | | | | | | | | | |

Rulers of Hawaii: Their Birth, Accession, Length of Reign, Etc.

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| Name. | Time and place of Birth. | e of Birth. Began to Reign. Age on Acc'n. | Age on Acc'n. | Date and Place of Death. | Age. | Length of Reign. |
|-----------------------------|-----------------------------|---|---------------------|---|----------------|---------------------|
| Kamehameha I Nov.—1737, in | Nov.—1737, in Kohala | 1782 | 45 yrs. | 1 Kohala 1782 45 yrs. May 8, 1819, in Kailua 81 yrs. 6 mos 37 yrs. | 81 yrs. 6 mos | 37 yrs. |
| Kamehameha II | 1797, in Hilo | May 8, 1819 | 22 " | Kamehameha II. ——1797, in Hilo May 8, 1819 22 " July 13, 1824, in London 27 yrs. 3 mos. | 27 yrs. | 5 yrs. 3 mos. |
| Kamehameha III. | Mar. 17, 1813, in Keauhou. | 1Mar. 17, 1833 | ,, 61 | Kamehameha III. Mar. 17, 1813, in Keauhou. 1Mar. 17, 1833 19 " Dec. 15, 1854, in Honolulu 40 yrs. 9 mos. 21 yrs. 9 mos. | 40 yrs. 9 mos | 21 yrs. 9 mos. |
| Kamehameha IV. | Feb. 9, 1834, in Honolulu. | Dec. 15, 1854 | 02 | Kamehameha IV. Feb. 9, 1834, in Honolulu. Dec. 15, 1854 20 " Nov. 30, 1863, in Honolulu. 29 yrs. 9 mos. 8 yrs. 11 ½ mos | 29 yrs. 9 mos. | 8 yrs. 111/2 mos |
| Kamehameha V | Dec. 11, 1830, in Honolulu. | Nov. 36, 1863 | 33 " | Kamehameha V., Dec. 11, 1830, in Honolulu. Nov. 36, 1863 33 " Dec. 11, 1872, in Honolulu. 42 yrs. | 42 yrs. | 9 yrs. 11 days. |
| Lunalilo | Jan. 31, 1835, in Honolulu. | 2Jan. 9, 1873 | ** | LunaliloJan. 31, 1835, in Honolulu. 2Jan. 9, 1873 38 " Feb. 3, 1874, in Honolulu 39 yrs. | 39 yrs. | 1 yr. 25 days. |
| Kalakaua Nov. 6, 1836, in F | Nov. 6, 1836, in Honolulu. | 3Feb. 12, 1874 | 28 | Honolulu. 3Feb. 12, 1874 37 " Jan. 20, 1891, San Francisco 54 yrs. 2 mos 16 yrs. 111/4 mos | 54 yrs. 2 mos | 16 yrs. 11 1/4 mos |
| Liliuokalani | Sept. 2, 1838, in Honolulu. | Jan. 29, 1891 | 25 | Liliuokalani Sept. 2, 1838, in Honolulu. Jan. 29, 1891 52 " Deposed Jan. 17, 1893 79 yrs. 2 mos. 2 yrs. nearly. | 79 yrs. 2 mos. | 2 yrs. nearly. |

1 Following a period of regency, from June 6, 1825, under Kaahumanu and Kalaimoku, during his minority

2 3 Elected by vote of Nobles and Representatives.

Hawaiian Government Changes Since the Monarchy.

| | ne 14, 1900 |
|----------------|---|
| . Remarks. | Till changed to a Republic, July 4, 1894. Till Annexation with U. S. June 14, 1900 Resigned November 23, 1903. Resigned August 15, 1907. Resigned November 29, 1913. Term expired. Resigned July 5, 1921. |
| Office. | |
| Ruler. | Sanford B. Dole President Sanford B. Dole Governor Geo. R. Carter Governor Walter F. Frear Governor Chas. J. McCarthy. Governor Chas. J. McCarthy. Governor |
| Date Effected. | |
| Form. | Provisional Government. Bepublic of Hawaii July 4, 1894. Territory of Hawaii June 14, 1900 Nov. 23, 1903 Aug. 15, 1907 Nov. 29, 1913 June 22, 1918 July 5, 1921 |

HAWAII

By LAWRENCE HITE DAINGERFIELD.

The soul of the surf in Hanauma Bay;
The vanishing clouds as they drift on their way;
The feel of the breeze 'neath the canopied trees—
These are some of the songs of the Wild.
The note of the thrush from his green-mansioned home;
The song of the lark, as freely we roam—
'Tis surely our gain, through sunshine or rain,
To have been thus bewitched and beguiled.

Thy touch leaves a charm like a mother's caress.

'Tis a gift of thy gods, in a world filled with stress,

This land of blue skies where all Nature vies

In a race for the ultima thule.

The mirth of the brook in its cascading play;
The curve of the bow in its colorful way;
Join picture with song as they both drift along
Through canyons, deep azured and cool.

The rage of the wind over peaks, castellate;
The path of the clouds, swept onward by fate,
With a wild rush of rain, like a frenzied refrain
From the lips of some titanic gnome—
An anthem is this of the pali and sky;

Of jungle-clad summit, with storms sweeping by
With a cry wild and strange, of an infinite range
As it calls from its limitless dome.

There's buoyant joy far up in thy hills,

Fair Hawaii, that brings to thy worshiper thrills

And a sense of how near is a conquest of fear

In a fight where wild elements roam,

To something sublime in the spirit of man,

Making deeds of such words as "I will" and "I can,"

And carries him on from dawn until dawn

To the end of the Trail and he's Home.

The soul of the surf in Hanauma Bay;
The vanishing clouds as they drift on their way;
The feel of the breeze 'neath the canopied trees—
These are some of the songs of the Wild.
The note of the thrush from his green-mansioned home;
The song of the lark, as freely we roam—
'Tis surely our gain, through sunshine or rain,
To have been thus bewitched and beguiled.

THE LAVAS OF THE HAWAIIAN VOLCANOES.

BY HENRY S. WASHINGTON,

GEOPHYSICAL LABORATORY, CARNEGIE INSTITUTION OF WASHINGTON, D. C.

O the Hawaiian resident and to the passing tourist the volcanoes of the Islands are thought of, visited, and remembered chiefly as spectacles; interesting because they give striking ocular demonstration of the forces that exist beneath our feet, but none the less regarded chiefly from the spectacular side. The visitor to Kilauea thinks of the lava merely as a material means through which Pele can manifest her power. It is a product of the volcano—magnificent when molten and in motion, but very awkward to traverse when cold and solid. To him, however, there is little real difference between lavas; some are black while others are red or gray, some are smooth and shining while others are dull and rough, some are full of bubbles while others are solid stone. But they are all only "rocks." A lava is a lava, that's the end of it; and neither kamaaina nor tourist can see what there is in them to study, nor why they are (to a few) of absorbing interest.

It is to point out briefly some of the characters of lavas that do not "leap to the eye," to try to explain a little of what they mean and what they may teach us as to the constitution of the earth, that I take advantage of Mr. Thrum's kind invitation to contribute a few pages to the "Annual." Such an explanation of the possible teachings of the Hawaiian lavas is especially appropriate for this publication, because the lavas of the whole Pacific basin are of much interest and importance for our knowledge of the earth, and are the object of considerable controversy among students of rocks, while those of Hawaii are of special interest because they may, in a way, be regarded as representative of all, or most, of the Pacific lavas.

Before we go into the matter of what lavas are and what are the differences between them, let us dispose (so far as we can) of one of the questions with which visitors to Halemaumau kindly endeavor to make Dr. Jaggar's life happy; that is, "Where does the lava come from?" To speak frankly, we do not know exactly, but there are reasons for thinking that they come from the depths not very far below the surface, depths of the order of, let us say, from 20 to 50 miles, almost certainly less than 100 miles. That is, the actual liquid lavas, as we see them issuing from the throat of a volcano, have not traveled very far, and are to be regarded decidedly as belonging to the outer part of the crust. They are, however, or formerly were, connected with much larger and more deeply-scated masses of molten material, the so-called magma, reservoirs, which when solidified form such coarsely granular rocks as granites, and which are revealed to us at the surface by processes of erosion and movements of the crust.

The essential, fundamental characters of lavas, which make them objects of special interest to students of rocks and of the constitution of the earth, are not superficially apparent, as has been said. The characters that attract the eye of the layman are very largely accidental, caused for the most part by chance conditions of cooling or exposure after solidifica-Thus, the petrologist attaches little importance to color, a character that looms large in the eve of the nonpetrologist, whether he be scientific or not. A coal black obsidian may show portions of snowy white pumice, often in the same hand specimen, and the microscope shows that the lava is really a quite colorless glass, the apparent blackness being caused by the presence of many very minute black grains. The brilliant reds and yellows, which are so pleasing to the uninitiated, are almost anathema to the petrologist: they are the result of weathering or the action of volcanic gases and the consequent oxidation of the iron in the rock, showing that the rock is not fresh, but is more or less decomposed. Similarly, whether the lava be fine or coarse grained, compact or more or less crowded with bubbles, depends almost wholly on whether it solidified before or after the gases that it contained had escaped; and this would depend largely on the accident of the place and conditions of cooling and solidification.

The essential characters of lavas, those that are of most

importance in their scientific study, are their mineral composition and their chemical composition. Nearly all igneous rocks, including lavas, are made up of minerals, a few of only one mineral, but the great majority of several. Many lavas contain glass as well—portions of the magma that solidified so quickly that it did not have time to crystallize and form distinct minerals. Some lavas, such as obsidian and pumice, are entirely of glass, containing no, or practically no, crystallized minerals. These perfectly glassy forms are rather rare among basaltic lavas, such as are so common in the Hawaiian Islands, but they are found at Kilauea as Pele's hair and forming the bubbles and drops on the shining surfaces of the pahoehoe flows.

Inasmuch as the kinds of minerals and glass that are present in a rock depend ultimately on the chemical composition of the original, subterranean magma, or of the lava as it issues from the volcano, we must consider the chemical composition of the rock as its most fundamental character. We can arrive at some knowledge, a rough approximation, of the main features of the chemical composition of a rock by study of the minerals that compose it, but for exact knowledge we must resort to chemical analysis, a rather lengthy and complex procedure, but one that is necessary for the proper study of rocks.

All igneous rocks, lavas included, have certain chemical characters in common. They are all composed in great part of silica, this oxide forming from one-half to three-quarters of nearly all igneous rocks. With this are combined (forming minerals) several other oxides, the chief of which are: alumina, two oxides of iron, magnesia, lime, soda, and potash. These seven oxides with silica and a little water, make up 98 per cent of the known rocks of the globe. A considerable number of other oxides and elements may be, and usually are, present, but in relatively very small amounts. The chemical differences between the various kinds of rocks are manifested in differences in the relative proportions of these several chemical constituents. Thus some rocks may contain 75 per cent of silica and others as low as 40, one may have 20 per cent of lime and another none, and so on, in many possible variations.

By studying these variations and their relations in the different kinds of lavas and other igneous rocks, as well as in the related rocks of various areas on the earth's surface (that is, their distribution), we may arrive at some important deductions as to the constitution of the earth as a whole and in its various portions. This sort of study, it may be said, is but one, though a broad, phase of the study of rocks.

By studying and analyzing lavas from all over the globe some important generalizations have been established. For one, various types of rock that are identical, or practically identical, in chemical and mineral composition, and even in details of texture, are found in various widely separated places on the earth. Thus, many of the basalts of the Hawaiian volcanoes can be exactly matched by basalts from many other localities; the white "trachyte" of Lahaina, on Maui, is almost indistinguishable from a lava in Sardinia; the lavas of some Greek volcanoes might be taken for lavas from those of the Andes; and so on.

But on the other hand the lavas of different volcanoes may differ very much from those of others. Thus the Hawaiian lavas do not resemble those of the Andes, and they are still more widely different from those of Vesuvius, though they are like those of the near-by Etna.

It is found, furthermore, that the volcanoes of different districts have poured out lavas which, while they may show considerable variation in any one area, yet for any given area possess certain chemical characters in common, which distinguish them from the general run of lavas from other districts. Thus, the lavas of the volcanoes that border the Pacific are all very much alike in their general chemical characters, into the technicalities of which it is needless to go here. This great family resemblance applies to the long line of volcanoes that stretch from near Cape Horn along the Andes, through Mexico and the western United States, Alaska and the Aleutian Islands, Kamchatka, Japan, the Philippines, and farther south. The lavas of the Hawaiian Islands, and of the other Pacific Islands, so far as we know them, are markedly different from those of the coastal volcanoes, though they present very marked similarities among themselves.

Vesuvius belongs to a line of volcanoes (now all extinct except it) that have poured out lavas of a very remarkable general chemical character, they being noteworthy for the extraordinarily large amount of potash that they contain,—a feature that some day will probably make them one of the world's largest sources of potash. The volcanoes of eastern Africa, along what is called the Great Rift Valley, are all very high in soda instead of potash. The lavas of the volcanoes of both the Pacific coasts and islands, it is to be noted, are markedly low in both these alkalies, especially in potash, they differing the one from the other in the relations of silica and of iron, magnesia, and lime.

From these and from very many other such examples we are forced to the conclusion that the igneous rocks of the different parts of the earth's surface or crust vary very much over larger or smaller areas. Furthermore, inasmuch as these lavas and other igneous rocks that we see at the surface are derived from the deep-seated bodies of magma, it follows that the supposedly molten or potentially molten matter far below is not alike all over the earth. That is to say, the material of which the earth is composed, at least toward the surface, is not homogeneous but is very markedly heterogeneous, either from the first general solidification of the globe, or brought about later by processes as to the nature of which we are still in ignorance. We cannot discuss here this matter of the heterogeneity of the earth, but the problems of its cause and of the processes by which it has been brought about—the Why? and the How?—are among the many fascinating and difficult ones that confront us in the study of our globe. For their solution study of the chemistry of lavas and other igneous rocks is all-important.

We come now to a special phase of this problem of the heterogeneity of the earth in which study of the lavas of the Hawaiian and other Pacific Islands plays a prominent part, and because of which the Hawaiian lavas are of special interest to the petrologist.

Before entering on this, however, we must have some idea of certain broad chemical differences between the rocks of different districts. There are many rocks that contain con-

siderable, medium to high percentages of silica, with much alumina, soda, and potash, but with little iron, magnesia, or lime. Coarse-grained, deep-seated rocks called granite and syenite, and lavas called trachyte, rhvolite, and obsidian, belong here. On the other hand, many rocks contain much less silica, with comparatively large amounts of iron, magnesia, and lime, and but little alumina, soda, or potash. Typical rocks of this character are the deep-seated gabbros, and the basalt lavas. The general term "alkalic" has been applied to the rocks of the first group, and that of "subalkalic" to those of the second. There are many other divisions and subdivisions, of less magnitude, and the chemical relations and interrelations of igneous rocks are most complex, but we cannot even begin to enter here into their intricacies. For our present purpose we need bear in mind only the distinction between the two broad groups of the "alkalic" lavas, typified by the trachytes, and the "subalkalic" lavas, which are represented by the basalts. It may be said that such a reference of the great majority of all igneous rocks to only these two large groups is not universally accepted among petrologists, and that many students (the writer among them) believe that the relations are far more complex.

Many years ago Prof. Suess, a prominent Austrian geologist, showed that the movements in the earth's crust, brought about by its contraction on cooling, are in general of two kinds. The one is tangential, that is, roughly parallel to the surface, giving rise to lateral pressure which causes folds in the rocks; the other is radial, that is, toward the center of the earth, resulting in the production of more or less vertical cracks, and the letting down of large blocks of the crust. In 1896 Prof. Harker, an English geologist, suggested that the extrusion of alkalic lavas was associated with radial, blockproducing movements, while the subalkalic lavas are associated with the tangential thrusts that result in folds. As it was thought that the alkalic lavas (typified by trachytes) are especially prevalent about the Atlantic Ocean, whose coasts are largely of the block type, lavas of this alkalic character were said to belong to the Atlantic group. The term Pacific group, on the other hand, is used for the subalkalic rocks, as the coasts of this ocean are largely of the fold type and the lavas of the Pacific volcanoes are prevailingly basaltic. This idea was developed further by other geologists and it is now quite commonly believed in, though there is a considerable body of geologists who do not adhere to the hypothesis, among whom (it may be said again) the present writer is to be found.

Whether the idea be true or not, it is of interest to quote the words of a prominent Austrian upholder of the hypothesis: "Thus, starting from the dry figures of the chemical analyses, which the chemist has obtained by toilsome effort, we come back to the broad principles which, in general, govern the construction of the earth's crust."

The fact that the lavas of the Pacific Islands are of a basaltic character for the most part is one of the mainstays for upholding the idea of two almost all-embracing, Atlantic and Pacific, groups of lavas. In recent years, however, French, English, and American petrologists have discovered the occurrence of truly trachytic or "Atlantic" lavas on several of the Pacific Islands, along with the dominantly basaltic rocks. This indicates that the Pacific lavas are not as wholly basaltic, that is subalkalic, as they have been supposed to be, or else that the supposed distinction between the two large groups has not the validity that is attributed to it, at any rate in the Pacific.

We know of the occurrence of trachytic lavas on Tahiti, on some of the Samoan and Cook Islands, and elsewhere in the Pacific. In the Hawaiian Islands, thoroughly typical alkalic trachytes were discovered many years ago at several localities, and they have been described by Dr. Cross of the U. S. Geological Survey. Two of the best known localities are the cone of Puu Waawaa on the slope of Hualalai, and the ridge of Puu Anahulu near-by, both on the Island of Hawaii. Study of the lavas of Kohala and Mauna Kea, on the same island, shows that many of their lavas are intermediate in character between the trachytic and the basaltic groups, while the lavas of Mauna Loa and of Kilauea, with those of Hualalai itself, so far as known, are all thoroughly basaltic in character. Typical trachyte occurs also in the neighborhood of

Lahaina, on Maui (where it is used for the making of concrete), and a study of specimens from Iao Valley on the same island shows that closely similar rocks occur there also. It is also probable that similar lavas occur on Molokai, to judge from a study of specimens collected by Dr. Daingerfield.

We know so little in detail of the lavas of the Hawaiian volcanoes, to say nothing of those of the other Pacific Islands, especially as to their chemical characters, that we must proceed with caution in making generalizations. But sufficient is already known to show very clearly that, although their lavas are prevailingly basaltic, yet that truly alkalic, trachytic lavas are by no means uncommon. As Prof. Lacroix, of Paris, says: "It appears to me probable that the exact study of the volcanic rocks of the Pacific will furnish us with surprises in the future, and that many of them, which (like the basalts of Tahiti) when considered individually and without chemical study appear to belong to a Pacific series, will be found to belong, more or less directly, to an alkalic (Atlantic) series."

A somewhat local phase of this matter, though one that has considerable significance for the study of the origin of the lavas, is that the occurrence of such trachytic rocks at some of the Hawaiian volcanoes may indicate that buried beneath the vast sheets of basalt that cover, for instance, the slopes of Mauna Kea, Hualalai, Mauna Loa, and Kilauea, there exist cores of trachytic rocks. We find similar cores of trachytes, covered by extensive basaltic flows, and later exposed by erosion, at some extinct volcanoes in Sardinia and elsewhere, and there is some indication of the same state of affairs at Vesuvius; it may well be that the structure of the Hawaiian volcanoes is similar, though the hypothesis cannot yet be proved. In studying these volcanoes, by the way, we must keep in mind the fact that only the extreme upper part is exposed to our observation, and that the great bulk of them lies deep beneath the sea, far removed from our study, except by processes of reasoning.

Another phase of this subject, which may be cited to show the possible importance of the study of the differences in lavas that are not at all evident to the casual observer, is the hypothesis of Prof. Daly, of Harvard, who suggests that the upper third of Mauna Kea is composed of lavas lighter than, and chemically different from, those near the base, which indicates, according to him, that in the upbuilding of the huge cone the heavier lavas settled toward the bottom while those of less density rose to the top. Prof. Daly examined only the upper part of the volcano, but a study of specimens collected by me in the ravines along the northeast coast of Hawaii after the meeting of the Pan-Pacific Scientific Congress, shows that there is, in reality, no such difference. Thus, a lava flow that issued at sea level near Laupahoehoe has a chemical composition that is almost identical with that of one from the summit of Kea described by Daly.

Another interesting application of the study of the lavas of the Pacific volcanoes, including those of Hawaii, is to the elucidation of the problem of the formation of the Pacific and other ocean basins. It has long been known that the lavas of the oceanic volcanoes are much heavier, as a rule, than are those of the volcanoes that occur on the continental land masses, and it is supposed that this difference in density is connected with, or has actually caused, the sinking of the vast tracts of what are now the ocean floors. This is a very probable theory, and one that is almost universally held to be true, but much further study of the lavas, which are the only means we have of arriving at a fairly exact knowledge of the composition of the oceanic floors, must be obtained, so that we may learn more of the details and be in a better position to study the question in a satisfactory way.

Finally, a recently observed feature of the Pacific lavas may be mentioned, which shows the importance of exact chemical study of them and which, though apparently of minor interest, yet has a very considerable bearing on the matter of the distribution of the rarer elements in the rocks and among the various volcanic districts of the earth. This is that a very considerable number of chemical analyses of Hawaiian and other Pacific lavas, made with great care and completeness some years ago by the chemists of the U. S. Geological Survey and by Prof. E. W. Morley of Hartford, show the presence in them of quite notable amounts of

chromium. Chemical analyses of some Hawaiian lavas that have been made by me in the last few months also show the presence of chromium and thus confirm the earlier observa-The actual percentages, it is true, are small and can be determined only by very careful chemical work, running from a trace up to about two or three tenths of one per cent. But chromium is very rare, if not entirely absent, in most lavas, so that such figures as these for this element, small as they may appear to be, are of great significance. In this connection it is especially noteworthy that fairly rich ore deposits of chromium are worked on the island of New Caledonia, where they occur with ores of nickel. Small amounts of nickel are also found in some of the Hawaiian lavas. On the other hand, numerous analyses also made by Morley show that the lavas of the circum-Pacific volcanoes of Japan, the Philippines, and of some of the islands of the Dutch East Indies do not contain either chromium or nickel, or but traces of them at best. There is, thus, good evidence that the lavas of the Pacific island volcanoes, contain notable amounts of chromium and of nickel, so that this is to be regarded as one of their minor chemical characters; while, on the other hand, the lavas of the surrounding coastal volcanoes are not characterized by the presence of these elements. We have seen above that the lavas of the two volcanic groups differ in their general chemical characters.

It must not be supposed, however, that there is any possibility of the discovery of workable chromium or nickel deposits on the Hawaiian Islands; these are but the summits of enormous volcanoes, while New Caledonia represents rather the basal portions, and has rocks (serpentine) of somewhat different character, in which the chromium and nickel are concentrated.

The matter is of special scientific interest because it is an excellent example of the way in which the various elements are distributed over the earth in the different lavas and other igneous rocks. The study of petrology is still scarcely more than in its infancy, but it gives promise of some interesting extensions of our knowledge of the composition and constitution of the earth.

Space is lacking for more examples of the varied problems presented by the study of lavas, including those of the Hawaiian volcanoes. But from what has been said it will be evident, I trust, that lavas are not all alike and of little interest except when they serve to furnish a magnificent scenic or pyrotechnic spectacle. Even when cold and inert—mere "chunks of rock"—they may be the objects of fruitful, interesting, indeed absorbingly fascinating study; and they may teach us much as to the globe that we inhabit, probably something also about the sun, and even possibly may give us a hint or two regarding the distant stars and the nebulae, out of one of which our own solar system is supposed to have been evolved.

PETROGLYPHS OF KAU.

BY ALBERT S. BAKER, M.A., M.D., B.D.

Annual, there was no expectation of continuing the subject, but a recent visit to the Volcano brought an invitation to view the petroglyphs discovered by Dr. T. A. Jaggar, Jr., in the Kau desert, in the summer of 1920. We started in from the main government road by a very vague trail at first, although it soon grew much easier to follow. We left the road a little way on the Kilauea side of a pile of stones on a rock ridge, just a little in from the road on the Pahala side of a clump of trees in the pasture on the opposite side of the road, which clump is itself a little to the Pahala side of the main Kapapala Ranch gate, about an hour's ride by automobile from the Volcano.

Following this trail, which is one of several ancient Hawaiian trails which lead from different parts of Kau into Puna, we come in about two miles to the so-called 1868 crack or rift, which is interesting in itself because of its tremendous length and weird depth and unique ball lava, the balls often being wrapped in extra layers of pahoehoe.

It may be well to note just here, that the recent Kau flow from Kilauea came out of this same crack much higher up, say some six miles from the crater, building Mauna Iki over the crack, a miniature Mauna Loa in shape, some two miles long. The flow is easily seen from the main road into Kau, having altered the whole skyline on that side. It flowed some five miles in all, with a little more issuing some nine miles from the crater and flowing about a mile. Previous flows from Kilauea have been in 1823 in Kau, partly covered by this flow, which broke out at the end of 1919; 1840 in Puna; a possible 1868 flow in Kau; and in the sea in Puna in 1884. In 1790 was the eruption from the crater of ashes, gas, sand, mud, pebbles, and boulders, over the whole neighborhood.

This so-called 1868 pahoehoe flow beyond the rift is easy to cross, and has many especially good tree molds, both above and below the surface, but we strike bad as later, especially in the 1823 flow. One has to be particularly careful when leaving the 1868 flow, not to take a trail to the shore, as cattle trails branch off in several directions, but to follow the same general direction in which we have been traveling.



The first petroglyphs are some two and a half miles from the erack, or four and a half from the road, at the head of an ancient lava channel, by temporary bench mark (T. B. M.) 1,249, between branches of the 1823 aa flow. They are few in number, extending for about 150 feet along the trail perhaps. There are a few crude human figures of single line form, a few larger ones with bodies wholly cut out, and also some concentric circles and dots. One similar human figure is on a high rock above the trail about ten minutes walk farther on, and a half hour more, or within ten minutes of the end, at temporary bench mark 1,027, in black fresh-appearing lava of the 1823 pahoehoe, is an anchor, two circles near each other, a circle enclosing a dot, and two semi-circles or what are more like horseshoes or crescents perhaps, etc., for about 100 feet.



KAMOOALII HEIAU, KAU, HAWAII.

The end of our journey is in the Kamooalii region, by Kamooalii Heiau; a small heiau about twenty feet square, the lower half paved, just below the trail and this main group of some half acre of petroglyphs. This place is some two and a half miles from the first petroglyphs, or seven from the main road, perhaps 700 feet above the sea and 1,000 below the road, a couple of miles from the sea and twice as far below the end of the recent flow, in a wild lava region, in sight of Keauhou and the high Puna bluffs. There are many small caves all about, some patches of grass, and many goats to add life to the scene. All this region is within the new Kilauea

National Park, which runs from shore to mountain-top, and will eventually comprise something like 100,000 acres.

One stone in the outside wall of the heiau toward Puna has petroglyphs, including a single line human figure with jointed legs and three-fingered and toed extremities. As in the larger fields on Hawaii the forms are very diverse. One man seems to grasp a stick, others have arms upraised, some figures seem to be animals, while circles, single and concentric, with and without dots, and semicircles are very common. One man has circles for legs, as does one figure at Kahaluu, Kona. Some figures are merely outlined and some wholly cut out.



An anchor seems to be represented here also, and what looks like a very good star-fish, as well as many unrecognizable hieroglyphics in general, though some suggest oriental writings or even Greek letters.

Much is very crude, partly due to the nature of the rock, where an outer crust chips off jaggedly, leaving a darker surface underneath, as with the naalehu petroglyphs, but some is in the usual hard pahochoe and deep cut and smoothly done.

A few days later it was possible to revisit the Naalehu petroglyphs in company with Mr. Westervelt, with whom the writer first saw these, his first petroglyphs, sixteen years before, which visit he described in the Annual for 1906, under the title of "The Picture Rocks of Naalehu." It is not necessary to rewrite all that is known of Hawaiian petroglyphs, nor to refer to all the references, since this subject has already been summed up several times, only to state that from the first dis-

coveries of recent years descriptions and references to other and earlier writings have been published in the Annuals of 1898, 1900, 1904, 1906, 1919, and 1920, and in the Bishop Museum "Occasional Papers," Vol. IV, No. 4. Reference is made to Naalehu only in order to describe more fully the way to find the petroglyphs, themselves fully described by Mr. Westervelt as stated, and by Mr. Stokes in the Bishop Museum Paper just mentioned.

We passed through a gate just at the lower edge of the village of Naalehu, into and through a corral, and out into the pasture a little way from and along the lower side of a stone wall, for some three-fourths of a mile, to a group of hala trees near a natural bridge over an old lava channel. The petroglyphs are a few human figures under the bridge and on the hala tree side of it, on the upper wall of the channel. There are also a few petroglyphs by another clump of hala trees in the same channel about a quarter of a mile above and across the stone wall. These are also on the upper side wall of the channel. The lava scattered all over these fields shows unusual quantities of green chrysolite or olivin.

On this same trip two hitherto undescribed groups of petroglyphs in caves were shown us near Pahala. If the larger group can be called the Kamooalii group, and the other the Naalehu or Natural Bridge group, then these must be called the Tortoise Cave and Cave of Refuge Groups.

Part way from the lone kukui tree to Pahala, which tree is only a little way beyond the trail to the Kamooalii group, at the second concrete bridge from the tree, which is also the second bridge after leaving the trees about Pahala, we go toward the sea on a line from the bridge to the end of an old lava flow, for the Cave of Refuge. We go past and just to the right of a rocky protuberance with a few trees on its summit, perhaps two miles from the road, a third of a mile below the above rocky knob and a half mile before the end of the flow before mentioned, not far from a fence, to a small hole in the ground, with two more deep holes just beyond it and a third

still further toward the fence. We go down crude steps in the first hole, and just there at the entrance to the cave are a few lined human petroglyph figures and some solidly cut out spear heads, etc. Just above the second opening in the roof of the lava channel the cave had been so blocked with stone that only a narrow low opening had been left, through which only one person could enter at a time, as in the famous Cave of Refuge at Kalapana, Puna. A second similar barricade had been built a little further in, and smooth paving showed in the channel deep under the third opening. Lava tunnels ran off in all directions from different sections, and all the cave was well arranged for defense.

To reach the Tortoise Cave we leave the main road just a little nearer Pahala than for the Cave of Refuge, only go above. Proceeding from the latter, we walk above the road near a fence, finally crossing the fence, traveling only about a quarter of a mile in all. The cave is in the bed of the next stream, crossed nearer Pahala by the other concrete bridge. Here, near the entrance to the cave, were the usual crude human figures, male and female, and little else; while just above and around a bend, where it would be dark without artificial light, right in the bed of the ancient lava channel, is a large, finely shaped tortoise shell of lava, covered with the same kind of petroglyphs.

Mr. A. F. Judd, in the 1904 Annual, tells of petroglyphs discovered near Pahala by Mr. C. M. Walton, "in three caves not far apart, about a mile mauka of the mill and about five miles from the sea coast of Kau, chipped on the floor of the caves and a few on the ceilings." Nothing could be learned of these caves on this visit. They may be in the same neighborhood as the Tortoise Cave, although this is probably not one of them. Mr. Stokes, in his Bishop Museum Paper noted above, tells of a few small petroglyphs scattered along the shore in Kau, a couple of miles either side of Punaluu, and says that "it was this coast that Ellis referred to when describing the petroglyphs he saw."

Although not petroglyphs, it seems wise before leaving Kau, to tell of the bare footprints discovered by an observatory expedition to the Kau lava flow in the spring of 1920. To reach this place we go directly in toward Mauna Iki on a trail from the present so-called half-way house, much nearer the Volcano than the few ornamental trees and rusty iron tanks marking the site of the old half-way house. It is in the real desert region, some two miles from the road and a mile or two from the center of Mauna Iki, at the sandy region reached just past a prominent old aa flow.

The 1790 sand, mud, and ash eruption went all over this region, falling in layers over the rough rolling pahoehoe at different levels and different angles. The lower sun-cracked mud layer has pisolitic mud rain-drops on its lower surface, just as the upper ash layer, above a foot or two of sand, is largely composed of them. Small stones also fell in the upper ash layer. These now stone layers are only an inch or two thick, and care must be exercised not to break them by too heavy foot pressure, as much has already been destroyed by the tramping of cattle and the ravages of time. Not only sun-cracks still show beautifully in what was the lower mud layer, but occasionally impressions of real rain drops may be seen. Both layers are yellow.



Footprints in Pisolitic Ash Layer from Kilauea in 1790. Note how what is stone now squeezed around the feet when it was mud.

The best footprints show here; heel, ball of foot, and all of the toes, and of all sizes, even to a child's footprint. In places the once mud, but now s t o n e, s h o w s s q u e e z e d u p around the footprints and between the toes in a most natural manner. A few prints are found in the lower layer, but most of them are in the upper layer, showing, however, that people were traveling during different periods of the 1790 eruption, as well as just after it. The footprints have been found by Dr. Jaggar here and there, in a strip some three-fourths of a mile wide, from a mile above this spot to two miles below it. The fact that these footprints, over 130 years old, are headed in all directions, makes one think that the people were not fleeing, but either sightseeing or perhaps looking for those who had been killed in Keoua's army. Both Keoua's army and these other travelers probably passed the Volcano on the side of the present road, judged by the direction in which this strip of footprints extends and also because the fumes would have been very bad on the other side.

Before closing this article on the petroglyphs of Kau, it may be well to mention other recent undescribed finds, the largest being made by Mr. Kenneth Emory in the summer of 1921 on the island of Lanai. Most of these petroglyphs are at a high elevation, on boulders, some figures being of animals, but most being of human beings. In the summer of 1919 Mr. Charles N. Forbes found a few red ochre pictographs of human beings, on the trail to Keanae Gap in Haleakala crater on Maui.

On Oahu Mr. Emory kindly took the writer to see the Nuuanu Valley petroglyphs, long known by several people but only recently considered seriously in connection with other finds. We go in under the pretty trees, over the old Pacific Heights car-track bed opposite Bates Street, in Nuuanu Valley, but soon turn to the left to follow up the left side of the main Nuuanu stream, here near the Pacific Heights wall of the valley. The petroglyphs are all on the hard ledge rocks, and rather difficult to find, all the forms being wholly chipped out, although very roughly done and only to a very slight depth. The first were perhaps a third of a mile up from the Nuuanu car line, where the high rocks first come close to the trail. An animal is seen by the trail, where one must climb to a high

bench of rocks to find some, and also from there down in between rocks to find others. It is on the left of the trail just before reaching a concrete water drain which passes under the trail. Here are several human figures, and what appear like cows and dogs or pigs as much as anything. A little further along the trail we climb up into a split in the rocks and down into a cave-like place for a number of male and female human figures, and a very little further up the trail and on a level with or below it, just abreast of a path into Alapena Pool, are a few more. The cave-like place has peculiar regularly lined rock all ready for pictures. Of course, being right in the city, there is considerable modern stuff all around it. This is about a quarter of a mile below the end of the trail at Kapena Falls and Pool.

In the Bishop Museum is a cast of a large petroglyph rock owned by Miss M. Damon, some three miles up Moanalua Valley, and there are also other samples, including a number of artificial footprints from Molokai.

It took the writer so long to find the petroglyph cave near Koko Head, that directions for that will close this article, although the petroglyphs are few, difficult of access, and have been fully described. See 1904 Annual. One should go straight ahead, instead of turning toward the old Koko Head wireless station, when over the various bridges, and up the ridge between Koko Head and Koko Crater as far as one will venture his automobile. Then bear to the left along the path on the ridge away from pretty Hanauma Bay, to the height near the ocean past the sunken crater. Going down to the left past the shore wireless masts, one should cross the first little gulch, which seems like an outlet from the sunken crater, and go down along the nearer edge of the second gulch on to the shore ledges, if there is not too rough a sea or too high a tide. The cave is toward Koko Crater, well around the first point to the left and north, after one has reached the shore rocks by the water. It is considerably before one comes to the fresh water trickling down the rocks from the green growth above to the

sea. It is rather a slanting crack than a cave, and is well within reach of the high sea waves. Aside from the few rough petroglyphs seen, the trip shows us a fine picnic region for other excursions.

"SANTA CLAUS" ADVENT IN HONOLULU.

I MAY interest others beside the inquirer of the Annual awhile ago, to learn when "Santa Claus" first came to town, and note the changes his benign influence has wrought in the community by the recognition of the Christmas season and their observance of the day.

Mention was made in one of our early reminiscent papers that the recognition of New Year's was much more general formerly than was the observance of Christmas, not only as a holiday, but as the season for the exchange of gifts and for social calls. This was the custom in vogue which is traceable back to the early '40's, and probably earlier. Christmas had but occasional mention as a holiday till well into the '50's, the only event of a festive social gathering noted, being in 1844. That year's Christmas was reported as observed by the closing of places of business, and "the people engaging in customary amusements of the day," whatever that may have been. In the evening Mrs. Dudoit, the lady of the French consul, gave a large and very agreeable entertainment, but no mention is made of "Santa Claus."

Even in 1852 no word of Christmas is given in the *Polynesian*, though the day of the paper's issue, that year, editorial attention being given toward New Years' as shown in the following notice:

"We are glad to learn that the pleasant custom of calling upon the ladies on New Year's Day will be kept up this year, and that many gentlemen are contemplating going the rounds among all their acquaintances on that occasion. If the weather is propitious, it bids fair to be a busy day for the gentlemen as well as ladies of Honolulu.

"We like the practice, and are glad to perceive that it is making way, and finding more and more favor among the foreign residents of this city."

This custom apparently continued without change till 1856, when, by royal proclamation, the Hawaiian Thanksgiving, which, since 1849, had been observed the last day of the year, was joined with Christmas, and special religious services were enjoined. Naturally public attention was enlisted.

A communication by a "New Englander" in the *Polynesian* of that year accounts for the non-observance of Christmas hitherto, in substance as follows:

"Christmas is becoming to be more generally noticed in America; but a few years back multitudes scarcely thought any more of Dec. 25th, than any other 25th. . . . In the settlement of New England, the Pilgrims endeavored to free the church from all rites, ceremonies and holy days not made obligatory... as set forth in Holy Writ... Inasmuch as the Bible was silent about Christmas, Lent, and other holy days, the early New England settlers declined to have anything to do with such days... and its influence has been felt down to the present time."

Honolulu papers carried no Christmas ads of any kind up to this time, nor did evening auctions of Christmas goods take place till two years later (1858). There were three evening sales in 1857, but not specified as holiday goods. It was left for John F. Colburn, with one evening sale, "For Christmas," to be the pioneer in what became attractive events of the holiday season, when A. P. Everett, John H. Cole, S. G. Wilder, E. P. Adams, Jas. F. Morgan and C. M. Cooke wielded the gavel and made them society events, with "front seats reserved for the ladies."

No notice of the day appears in 1856 or '57, so the spirit of change may be safely placed in 1858, and the first mention of a Christmas gathering of young folks, at which "Santa Claus"

presided, was at Washington Place, given by Mrs. Dominis.

The eventful day that year had unusual press recognition, nearly a half column notice being given, largely devoted to this social event, in part as follows:

"Christmas passed off in good old fashioned style. The eve was ushered in by the assemblage of a large number of children and their parents at Washington Place, the mansion of Mrs. Dominis, where Santa Claus had given out that he would hold his court. . . A magnificent Christmas Tree had been provided . . . and the little folks as they gathered about it . . . found it all lighted up with candles, and the branches bending with the weight of gifts. Prompt as old Father Time ever was, bells were heard at the windows . . . and in a moment old Santa Claus stood at the door before the youthful group, who greeted him with a volley of merry shouts. He was dressed in the garb in which children love to imagine the saintly old elf.

"For an hour he bestowed his gifts with princely lavishness among the 100 children present, creating one of the happiest groups ever witnessed in Honolulu . . . who will long continue to talk of Santa Claus of Washington Place."

The trade woke up to the spirit of the occasion the following year, von Holt & Heuck being the pioneers in Christmas advertising with an announcement to "Prepare for the Holidays," in a six-inch ad of "Fancy Articles Suitable for Christmas and New Year's Presents." The rival auctioneers of that time, A. P. Everett and J. F. Colburn, held three evening entertainments between them during December of Christmas and New Years' goods, thus establishing a holiday season trade-feature that lasted many years.

Christmas fell on Sunday in 1859, which delayed the arrival of Santa Claus, but two evenings later he took possession of "Little Britain," the spacious residence of Capt. G. H. Luce, and made merry with a larger gathering of little folks in his distribution of gifts, following which, their elders indulged in dancing till the small hours.

Thus Santa Claus and his Christmas Tree came to Honolulu, and established himself in the hearts of Hawaii's cosmopolitan peoples, for the gracious influence of his kindly spirit manifests itself with increasing power, as evidenced in the Community Christmas Tree, with carols and tableaux portraying the Bethlehem event, held for several years past at the executive building and grounds, the outgrowth of the "Malihini Christmas Tree," instituted in 1908 by a party of visiting Chicagoans, which was held in Bishop's Square, to provide gifts to the waifs of the city.

Special attention is now given by the trade to the taste and Christmas needs of the community, goods of high class, and latest novelties predominating in the various lines of selected holiday attractions, little, if any, "consignment" class of toys, etc., as in former years, now being countenanced.

Another important change is the liberal advertising that is done throughout the holidays, which helps the buyers, and creates a period of shopping activity and animation which pervades all classes with the "good-will" air of the season.

REMINISCENCES OF AN AMATEUR COLLECTOR.

BY J. M. LYDGATE. (Continued from last issue.)

E HAD now pretty thoroughly covered Molokai and Lanai and the summer season was drawing on toward the close. Dr. Hillebrand must get back to his practice and I must go back to school. But he was anxious to devote a short time at least to West Maui, which by physical configuration and climatic conditions belongs with these other two islands.

Walter Murray Gibson kindly offered us the use of his house at Lahaina while we were there and it proved a very acceptable offer. It was on the beach—a grass house just west of the courthouse—cool, clean, comfortable and cosy.

We got our meals at a near-by restaurant. One of the delightful privileges of the location was a sea bath every evening just before retiring,—especially acceptable after a long, hard day in the mountains.

Lahaina at that time was in the interim stage between the decadent prosperity of the whaling trade and the rising prosperity of the sugar business. There were two small, struggling plantations, Pioneer and West Maui, scattered about through the town and its suburbs, producing, each of them, less than a thousand tons a year. While of course there was a large Hawaiian population and a few Chinese, there was little else. In the town proper there were three or four white families, with a couple more at the Lahainaluna School, which was then in the heyday of its early prosperity. The Mission home of the Baldwins in the center of the town was the center of the social interests and amenities of the place.

Lahaina was favorably known in those early days as the one place on the islands where grapes were raised successfully and one, Oudinot, was famed for his fine vineyard. Dr. Hillebrand knew him well, and we were favored guests at his simple bachelor home. As I remember, he was an excellent musician, as was also Dr. Hillebrand, and between the grapes, the music, and the gracious and vivacious French hospitality, we spent some very delightful evenings there.

Botanically we devoted ourselves mainly to the valleys in the vicinity of Lahaina. Starting as early as we could in the morning, we rode horseback as far as we could up the bed of the stream, until such going was no longer possible, when we dismounted and continued afoot. This method was the only practicable way of getting into the heart of the mountains. The ridges were very steep and densely covered with uluhi and other impenetrable jungle. The only fairly open road was the bed of the stream, rough and adventurous, jumping from stone to stone, swimming the pools and climbing the waterfalls,—a mile an hour was good going,—but that was quick and easy work compared with fighting uluhi and ie-ie anywhere else.

Having spent a good part of the day struggling through the lower and less interesting sections, and having reached the central fastnesses, where the rare and interesting plants lived, we were loath to turn back until we had reached the end, generally a misty trail of waterfall up into the clouds.

On one of these occasions we were late getting started, for some reason, and the valley was a long one penetrating far into the mountains, so that it was well along into the afternoon before we reached the region of the inner sanctum. Keenly scanning the banks of the stream and the palis above for anything new, unfamiliar, or valuable, and absorbed in the interest of the explorer into the unknown, we let the time run on, until when we reached the final waterfall into the clouds, it was 5 o'clock. Then we knew that we were in for it and that we would have a time getting home that night. As long as there was light enough to see at all we made the very best of time. But when the light utterly failed us we had to literally feel our way and our progress was naturally very slow. Fortunately it was a clear night with a star-lit sky overhead in the narrow valley, but no moon. About 11 o'clock we reached our horses and abandoned ourselves to them, just turned them loose and they took us home, which we reached about an hour later. I think we were both as completely "all in" as we could well be, overcome with hunger,—having taken no lunch,—as well as exhaustion. All we had in the house was some beer, a glass of which the Doctor insisted on my taking. Ordinarily I hated the stuff, but that night it was delicious, it revived me wonderfully. A hurried "dip" in the sea at our door, and then to bed for a long, profound sleep, leaving our precious plants over for the next day.

Another interesting and profitable trip was the ascent of West Maui. Realizing that it would be a strenuous trip, we wisely broke it into two parts. Connected with the Mission there was a mountain place on one of the ridges back of Lahaina known as "Mount Retreat," where the wearied mission-aries could find rest and renewed vitality in the cooler climate.

The house had somewhat fallen into disrepair but it was quite habitable and most picturesque and beautiful, since it was garlanded with fragrant climbing vines. We rode this far, spent the night there and started out early the next morning. Part of the way there was a semblance of a trail, but finally it was the usual struggle along a narrow ridge, fighting the jungle and facing the rain and fog and dripping vegetation. When we finally emerged at the top, and the fog broke away in part so that we could see about us, the attractions of the interesting region fully repaid us for the long, hard climb.

Suddenly, and without any apparent reason, the jungle cover broke away and we stepped out on an open meadow of tufted grass with little ponds of shimmering water, set like mirrors in the green environment. And all about were strange, unfamiliar plants which grew nowhere else,—violets, and wonderful rare lobelias, and miniature geraniums, and evening primroses, with dwarf lehua a foot or two high,—an Alpine form—but ablaze with crimson flowers. It was a different world—not Hawaii at all—with only the familiar lehua to remind us where we were. I fancy that one day on Eeka gave us larger and more interesting returns than any other single day of our trip.

It was too foggy for us to see the wonderful panorama of mountain, ridge, and valley which is reserved for the fortunate man who strikes it in a southerly spell of clear weather. This was my good fortune two or three years later, when, in connection with the Government Survey, we established a Trig. Station there. The sky was cloudless, and the whole West Maui with its complicated system of radiating ridges and valleys was spread out in emerald beauty before us.

We spent a few days at Kaanapali, at a ranch there, but were rather disappointed with the flora of that region, which gave us comparatively little of interest.

One of the adventurous trips of early days was the transit of West Maui from Lahaina to Wailuku by means of the Olowalu Pass. The old Hawaiians made the trip not infrequently,

and two or three of the Missionary boys had made it some years before. It promised to be an interesting and adventurous trip, and would doubtless yield valuable returns botanically. Accordingly, the Doctor decided to make it.

We found that there was one old man left who was familiar with the route and who assured us that he was able to guide us through, so we engaged him with all confidence. Starting early, with as light a pack as possible, we made our way up the valley without mishap and undertook the climb to the top of the pass—a narrow saddle separating Olowalu from Iao Valley. The way became more and more precipitous, and our old man became more and more kanalua,—doubtful—until we finally faced an inaccessible pali. Then the old man gave up and declared that we were lost and had better return home. By this time it was late in the day and, as it was perfectly evident that farther progress in our present direction was out of the question, we agreed that we would have to return to the bottom of the valley to spend the night and hold a council as to further action. We camped under a beautiful big kukui tree in the bottom of the valley and spent a very comfortable night with no other shelter than nature provided us. In the morning we conferred with our guide as to trying it again, but found him so entirely at sea and so pessimistic in regard to our getting through that we were compelled, very reluctantly, to give it up. The next day we made the trip prosaically over the mountain by the government road to Wailuku. A few days about Wailuku, where we explored the Waihee and Waiehu valleys and some of the ridges back of the town, completed our summer's work and terminated what was for me a most memorable experience.

At the date of our exploration these islands, Molokai, Lanai and West Maui, offered an exceptionally attractive field for investigation. Very little work had been done on them. The early voyagers, from whom our knowledge of the flora largely came, naturally devoted their attention to Oahu and Hawaii since these islands were the most accessible to them. Wawra and Knudsen had done considerable collecting on Kauai, Hille-

brand himself had done most of his collecting on Oahu, with an occasional trip to Hawaii. Molokai, Lanai and West Maui were in a way inaccessible, not easy to get at, and still more not easy to get about because of poor roads. Accordingly, they were unworked fields and therefore full of promise.

Another element of promise was the time of year,—it was summer. Notwithstanding the fact that these are the tropics, where it is always summer and where things are always green and growing, there are nevertheless seasons—times when there are flowers and fruit, and other times when there are not. There can be no greater disappointment to the botanist than to find a rare or new plant with no vestige of flower or fruit—he might as well not have found it at all. The success of our tour was largely due to this fact, that it was summer, and what we found we made good on.

Ours was a thorough, methodical search. We settled down in a district and we stayed there until we had pretty thoroughly worked it out. The ordinary amateur collector gathers his collections in a desultory kind of way. He has a day now and then, and makes his collections wherever chance or some other interest may place him,—mere botanical skirmishes—whereas ours was a systematic campaign. For these reasons our tour gave promise of being a somewhat notable one. And the results justified the promise. I have no record of the number of species collected, still less of the number of specimens, but a careful count shows that we found no less than 90 new species. Considering that the Island flora at that time numbered some 800 species, this was a very large addition to it, larger I believe than any other single expedition has made.

This collection was notable in another way. In many of the more populous orders of the Island flora the species slide into one another with the perplexing fluxity, so that it is unsafe to determine identities without many specimens for comparison. We collected generously, almost extravagantly, and our collections were doubly valuable for that reason.

Finally, we collected in the "nick of time." Some of our

"finds" are no longer to be had at any price. Some of them were then evanescent and we knew it at the time,—more have become so since.

I can hardly bring these random reminiscences to a close without a word of appreciation for Dr. Hillebrand,—the central figure of them.

When you live with a man as intimately as we did, you come to know him pretty well, and if he has any shortcomings you find them out.

The good doctor was always a gentleman, in the largest sense of the word,—genial, kindly, natural and easy, but never common or coarse in the slightest degree. He was most companionable and interesting, yet always in a dignified and courteous way. He was unvaryingly patient, as he sometimes had need to be, with a more or less irresponsible boy like me. He took a kindly and fatherly interest in me, which outran the time being, and was very helpful to me.

Intellectually and socially he was a man of most varied and valuable attainments, well versed along many lines, and at home on any subject, and in any surroundings. He was undoubtedly one of the most valuable men who have made the Islands their home, and his memory will be treasured as such.

NATIONAL PARK DEDICATION: Kilauea was formally admitted into the national park family with unusual dedicatory exercises, July 9th, 1921, participated in by A. O. Burkland—commissioned by the secretary of the interior for this service,—Messrs. Kaltenborn and Davison of the "Brooklyn Eagle" party of twenty-eight, to witness it; L. A. Thurston, Dr. Jaggar, Revs. S. L. Desha and Kaaiakamanu, and Dr. Milton Rice, of the Hilo board of trade, in the presence of a large assemblage. The opening of the service was a chant to Pele, goddess of volcano fires, said to be centuries old.

THE BELOVED MOUNTAIN.

BY REV. A. W. PALMER*.

POUR years ago from the deck of the Mauna Kea I first saw the beloved mountain. All through the late afternoon we coasted along its shores, marveling at its contour and bulk. It was not jagged and dramatic like the high peaks of the Alps or the Sierra but resembled nothing so much in all the world as an over-turned bowl or the low-swelling outline of a Byzantine dome. It was hard to believe that this great rounded hill was ten thousand feet high. But as one sails along beside it hour by hour, watching the shadows and the clouds fold and unfold upon it, its enormous bulk, its unshakeable silent dignity, its unity and symmetry are more and more impressively revealed. Here is a great mountain rising out of the sea in noble isolation, unscarred, untroubled and serene. So you say-for until you have climbed the mountain you know not the mighty wound concealed beneath that rounded crest—the great crater with its six-mile chasm so completely hidden from the sea.

Since then I have known Haleakala in many moods—the grassy trail through upland meadows to the summit, the long, rough road which struggles along its corrugated sides to Kula, the jagged edge of the crater, the noble trees of Ulupalakua, and the superb view from Waiakoa off across the fields of sugar cane to the cloud rack above West Maui or down into the blue serenity and breathless stillness of the ocean and the flat outlines of Lanai and Kahoolawe, lying without depth or perspective upon the surface of the sea.

But Haleakala is the beloved mountain, not only for its serene and healing beauty, but even more for the well-loved folks who dwell upon its hospitable, far-spreading sides. First among these are the birds—the linnets with their canary-like carols, and the larks, those invisible miracles of song, "singing hymns at heaven's gate" far up in the clear blue sky.

^{*} Honolulu Star-Bulletin Editorial, June 25, 1921.

Akin to the birds are some of the people who share with them the clear, cool air and the limitless view from the mountain. Most serene is the uncrowned queen of Maui, who sits in the golden afternoon of life enthroned in the love of all who know her. The ample friendliness of her simple and homelike house, the kindly errands of her silent car, the tolerant hospitality of her poised and sympathetic mental outlook, have slowly woven a spell of great-hearted goodness about the island that has been her home during all the years. It is the lingering benediction of a saintly father and mother who came in the long ago bringing the evangel of the Son of Man. If she has had sorrows and found her way through shadowed valleys, no trace of it has been left upon her except it be in a mellower wisdom and a kinder patience.

Here upon the beloved mountain also lives the lady of all good deeds. The full strength of life is hers and she uses it nobly for the building of human brotherhood. She knows the social forces of her island, has organized and guided many of them and year by year, without spasmodic sentimentalism or dilettante futility, she steadily builds the better social order that is to be. Few others with her wealth and social prestige could so completely escape from the artificiality and glamour of worldliness, what Jesus called "the deceitfulness of riches." Few others, rich or poor, are so sane, so wise, so modest, so constant, dependable and unassuming in the service of the great ideals of Christ.

There are many others who make the mountainside of never ceasing interest; there are the bride and groom, for gracious loveliness and boyish strength are also in this sanctuary; and there is "the woman who knows how," ready for a fight or a frolic, as Dewey said, whether the fight be a struggle for life as she helps the doctor with a baby case or the frolic a picnic at Makena. Happy the doctor who opens the door to some mountain cabin and finds "the woman who knows how" has reached there first and greets him with a cheery "Hello,

doctor," a sound of boiling water on the stove and her sleeves rolled above her elbows.

But, for me, interest in the beloved mountain centers at the sanitarium at Kula because there the best friend I ever had fights the good fight and keeps the faith. Always a man of action, tremendously vital in all his ways, with bulk of body, clarity of judgment, sensitiveness of brain and rightness of purpose, he has become in these latter days of physical weakness an illuminating and life-giving spirit to all the mountainside. From the observatory of his screened lanai hung out above it all he looks down over the world and the seven seas with love and faith and never flagging interest. Though his body wastes his soul grows greater as he communes with the stars by night and the world by day and all the time with the God whose strength is so often made perfect in weakness. And we who are his friends go from him not with pity but with renewed strength and deeper faith in the unseen verities which abide forever.

The heart of the sanitarium is "a doctor of the new school." Read over again Ian MacLaren's loving account of "a doctor of the old school" in the Bonnie Brier Bush and then understand that the doctor at Kula, in original and modern ways appropriate to his day and his problems, is nevertheless Dr. MacLure's counterpart in integrity and spirit. This is the suggestion of the patient on the screened lanai and he knows that it is true.

Nine years ago a tall young doctor came to be the government physician in the wilds of Kula. He noted the ravages of tuberculosis and built among the paninis on the mountainside a hut with a corrugated iron roof to shelter four patients. It was the beginning of the present well-equipped, faultlessly spick-and-span sanitarium, and one of those patients is still there to-day.

For nine years this tall young doctor has gone his wholesome human way along the mountainside. He knows "T. B." as few men know it, but he also knows the human heart. It is said of the heavenly city that "they shall bring the glory and the honor of the nations into it." He has brought the sick and forlorn of all the nations into his place of healing. And he has in some way synchronized his thinking with theirs so that he understands them and they understand him. (I know this—the man on the lanai observed it and told me so.)

Nor does he confine himself to the office in the sanitarium. A call comes from some remote cabin: "Wahine sick, maybe make, doctor come quick!" and he drives his car to the appointed spot, finds a horse tied to the entrance of a trail, rides far up the mountainside and, acting as his own nurse, helps some woman through her struggle until she rejoices that a man is born into the world.

This doctor is more than a medical expert—he is an exponent of socialized medicine. His "graduates" are better citizens as well as healthier men and women. Recently okolehao began to make inroads among a group of young fellows who claimed his interest. To the disgrace of our civil government, be it said, he couldn't stop the illicit liquor making, but he did organize the young men who were in danger of being injured by it into a club—and no booze comes into that club!

There are other reasons, but these are the outstanding ones why Haleakala is for me no longer "the-house-built-by-the-sun," but ka mauna i aloha ia, "the beloved mountain"!

Complimentary: Among the various testimonials appreciative of the *Annual* that comes to hand from time to time, is the following kind tribute, this summer, from one now abroad who knew it before it had reached its teens:

"As usual when your last Annual arrived I read it from cover to cover. Other kamaainas have read it, and its predecessors, but I take care to have them returned. I hope you will get out the fiftieth edition, and that some one will continue it. It is the most authentic record of Hawaiian history for the last half century and has become one of the recognized Hawaiian institutions which must go on, like the brook. I do not look for improvement, and it is not necessary."

THE PAN-PACIFIC EDUCATIONAL CONFERENCE.

DR. FRANK F. BUNKER, Executive Secretary Pan-Pacific Union.

N August 11, last, there convened in Honolulu, T. H., the first Pan-Pacific conference of education ever held. Seventy-five persons, some officially representing the governments of the Pacific and others representing institutions of learning and national organizations interested in education, met for a ten days' session, which was notable for the high note of idealism struck on the opening day and sustained throughout.

A SERIES OF PAN-PACIFIC CONFERENCES.

The Pan-Pacific Union, an incorporated body, having an international board of trustees drawn from every race and nation of the Pacific, having for its objective the purpose of bringing the nations and peoples of the Pacific into closer relationship and better understanding, through its Secretary-Director, Mr. Alexander Hume Ford, had planned a series of Pan-Pacific conferences. The first of the series was a conference of scientists of the Pacific countries which convened in August, 1920, for a successful discussion of the problems in the field of science which were of common interest to the peoples of the Pacific.

The conference of educators, just held, was the second of the series. The third is the Pan-Pacific Press Conference, to be held in conjunction with the Press Congress of the World, which convened in Honolulu in October, 1921. The fourth, the call for which is now about to go forward, will be a conference of the leaders of the Pacific in matters pertaining to commerce, and will convene in August, 1922. In 1923 or 1924 there will be held, likewise at the call of the Pan-Pacific Union, a Pan-Pacific Olympiad, comprising the native sports and contests of every variety and character as practiced by the

Pacific peoples. Other conferences, designed to provide a natural reason for the convening of peoples from each of the countries of the Pacific, are in contemplation.

THE ORGANIZATION OF THE EDUCATIONAL CONFERENCE.

A year ago the Pan-Pacific Union invited the United States Commissioner of Education to organize the conference, to arrange its program, to invite the nations of the Pacific to participate by sending delegates, and to preside at its sessions.

In consequence of the Commissioner's activities, in due course, through the Secretary of the Interior and the Department of State, invitations to send delegates to the conference and to participate in the discussions went forward to the governments of all countries and self-governing colonies on the Pacific Ocean. The communication sent out by the Secretary of State is of interest. It follows:

DEPARTMENT OF STATE.

Washington, D. C., February 19, 1921.

To the Diplomatic Officers of the United States accredited to Guatemala, Salvador, Nicaragua, Honduras, Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia, Chile, Japan, China, and Siam.

Gentlemen:

A Pan-Pacific Congress on Education will meet at Honolulu, Hawaii, from August 11 to August 21, 1921, under the auspices and patronage of the Pan-Pacific Union.

The program of the Congress, which has not yet been fully formulated, will include, but not be entirely confined to—

A presentation of educational conditions in each country.

A presentation and discussion of the possibilities and needs of education in the several countries, viewed from the standpoint of their civilization, their form of government, their productive activity and natural resources. A discussion of the forms of organization of schools and other educational agencies to meet these conditions and minister to these needs.

A discussion of support of education, including sources and methods of taxation.

It is the desire of the Union that each of the states and self-governing colonies bordering on the Pacific should be represented at the forthcoming Congress either by delegates actually engaged in the elementary, secondary, higher and professional and technical education work of that country, or by those competent to speak of such work.

At the request of the directors of the Union, the United States Commissioner of Education will undertake the direction of the Congress; and the Secretary of the Interior, under whose administration the Bureau of Education falls, has requested the Department of State, on behalf of the Union, to transmit an invitation to the Governments of the States and self-governing colonies bordering on the Pacific to appoint delegates of the character mentioned to the Congress.

You are accordingly instructed to communicate, on behalf of the Pan-Pacific Union, to the governments to which you are respectfully accredited, an invitation in the sense above indicated. You will add that while the Congress will not be under the auspices and patronage of the Government of the United States, this Government will be glad to learn that the Government to which you are accredited will regard the Congress of sufficient interest and importance to warrant its participation therein by expert delegates.

Detailed information concerning the Congress will be later furnished by the United States Bureau of Education and by the Pan-Pacific Union.

I am, Gentlemen, *

Your obedient servant,

For the Secretary of State,

ALVEY A. ADEE, Second Assistant Secretary.

THE PRESIDING OFFICER AND PROGRAM.

While the preliminaries were going forward, a change was made in the office of the Commissioner of Education, Dr. P. P. Claxton, who had carried forward the plans for the conference, retiring, to be succeeded by Mr. Jno. T. Tigert. It came about, in consequence, that neither the old nor the new Commissioner could attend. Exercising, however, the authority delegated to him, the Commissioner detailed Dr. David Starr Jordan to preside in his stead and also appointed the writer to act as his personal representative.

In respect to the program, it was the desire of both the old and the new Commissioner that the utmost democracy as well as spontaneity in discussion should be secured and conserved. They, therefore, felt that to attempt to outline in detail a daily program for the conference, five thousand miles distant and without knowing who would be present, or what themes were uppermost in the minds of each, not only would be futile but would defeat the very purpose of the conference.

They, therefore, proposed that upon arrival, the presiding officer should appoint an executive committee, made up of delegates from each of the countries represented, and that to this executive committee should be entrusted the task of interpreting the thought and interest of the conference from day to day and translating it over into terms of themes and speakers.

THE WORK OF LOCAL SUB-COMMITTEES.

In the meantime, the citizens of Honolulu were grouped into many sub-committees, each being detailed to specific tasks, all fitting into a well thought out whole. The sub-committee on program, Dr. A. L. Dean, president of the University of Hawaii, chairman, co-operating with the Commissioner of Education in outlining the scope of the conference, rendered signal service. The sub-committee on entertainment, Mrs. F. M. Swanzy, chairman, working through and with other committees organized among the native Hawaiians, the Filipinos, the Chinese, the Koreans, and the Japanese, respectively, provided

a series of entertainments for the delegates which was remarkable for its novelty, interest and beauty. It is safe to say that no convention anywhere was ever so royally entertained and, it is believed, never before in Hawaii was there such a splendid showing made by the various racial groups which comprise the population of the Islands. The work of Mr. Alexander Hume Ford, Secretary-Director of the Pan-Pacific Union, and of Mr. Vaughan MacCaughey, Superintendent of Public Instruction of Hawaii, in planning the local preparations and in carrying forward the heavy correspondence with the institutions, organizations and governments of other countries deserve special mention.

THE FIRST DAY OF THE CONFERENCE.

The morning of the first day of the conference was given over to open-air ceremonies held on the steps of the Executive Building, which included the installation of Honorable Wallace R. Farrington, Governor of Hawaii, as the President of the Pan-Pacific Union; the presentation of flags from President Harding of the United States, Prime Minister Hara of Japan, and the flag of Hawaii by Honorable Sanford Ballard Dole, former president of the Hawaiian Republic and the first Governor of the Territory of Hawaii. The presentations were followed by a very picturesque and touching flag drill participated in by children of the many racial groups of the Kaiulani public school of Honolulu.

These ceremonies completed, all assembled in the throne room of the Executive Building and were there greeted in appropriate words by Governor Farrington, Mrs. Francis M. Swanzy, Mrs. Walter Frear, Mr. Alexander Hume Ford and Baron N. Kanda of Japan. The conference thereupon was formally placed in the hands of the presiding officer, Dr. David Starr Jordan, who replied to the greetings with a fitting response.

GREETING OF PRESIDENT HARDING.

In the course of his welcoming remarks Governor Farrington read letters from President Harding and from the United States Commissioner of Education conveying their greetings and best wishes for the success of the conference. President Harding's letter follows:

The White House, Washington, D. C., July 22, 1921.

My dear Governor Farrington:

The Pan-Pacific Congress on Education, soon to meet, has greatly appealed to my imagination, and I want to express my hopes that it will be marked by a measure of success that will justify all the hopes that have been entertained for it. It seems only yesterday that we thought of the broad Pacific as separating two unrelated worlds; now we have come to regard it as a world by itself, the greatest of neighborhoods, a romantic meeting place of East and West, where each merges into the other and both discover that at last the supreme interests of humanity are common to all men and races. Two-thirds of the earth's population live in the lands of the Pacific, numbering the oldest and the newest of organized communities, and, characteristic of our times, their mighty ocean is come to be regarded by all of them as a bond rather than a barrier. In a large way, we must feel that the future of the race, the hope of creating a true community of men and nations and civilizations, each retaining its own traditions, character and independence, yet all serving the common end of human progress, must greatly depend on the development of your fine ideal of a Pan-Pacific neighborhood. With better acquaintance, more intimate interdependence, riper mutual understandings, we shall advance toward the realization of such an ideal. I feel that your Educational Congress is one of the most practical means of drawing these communities thus closer together, and therefore have Most sincerely yours, special reasons to wish it well.

(Signed) WARREN G. HARDING,

Hon. Wallace R. Farrington, Governor of Hawaii, Honolulu, H. I. THE "KEYNOTE" ADDRESS OF THE CONFERENCE.

The afternoon session of the first day was devoted to a report of the executive committee on plan of procedure; to the presentation of the delegations from the countries represented and to an address by David Starr Jordan, on "The Objectives of the Conference."

In this address Dr. Jordan struck the "keynote" of the conference by pointing out that Canada and the United States have set an example for the countries of the Pacific in the matter of friendly relationships and that our object is to prevent hatred from creeping into the minds of the peoples of the Pacific.

"Hatred," Dr. Jordan said, "is born of ignorance. It is very easy to start hate. It does not require any truth, and once started it is the worst weapon that can be found. It has no part in Democracy, and no part in Christianity. Pure patriotism means love of one's country and the realization that the good of one's country never means harm to another. It is our business to do away with hate and develop peace. It is the duty of teachers to be apostles of the Holy Ghost, to promote idealism. We cannot get rid of war by war. It will have to be peace that brings about peace, and we can make this great ocean a region of peace. The future of the world, in the long run, rests with the teachers. It is in the schools of to-day that the future of to-morrow is being written."

THEMES DISCUSSED AT THE CONFERENCE.

The second day of the conference was given over to a discussion of the purposes and objectives of the conference, delegates from each country having a representation, participating, then followed the presentation and discussion of such general themes as the following:

An interpretative description of the systems of education of the Pacific Countries.—The relation of education to national polity.—The application of the community principle to international problems.—What Knowledge is.—The needed knowledge

edge content.—The function of the chief divisions of education in relation to world peace.—Education and the State.—The relation of religion and education.—A Pan-Pacific University.

CLOSING SESSION.

The closing day's session comprised short talks by representatives of national organizations and of institutions of learning; a tribute to Mr. M. M. Scott for his notable educational work in Japan, given by Hon. Sanford B. Dole of Hawaii and Baron Kanda of Japan; five-minute expressions from a number of delegates, each recording his impression of the conference; and the formal ceremony of turning the conference back to the Pan-Pacific Union, participated in by Dr. E. C. Moore, acting for the presiding officer, and Governor Farrington, representing the Pan-Pacific Union.

Thus ended a session of seven working days, which was characterized to an unusual degree by its practical idealism; by its emphasis upon amity, good fellowship and square dealing among the nations and peoples of the Pacific; by the good will and good fellowship expressed by the delegates in attendance without exception and by the formulation and adoption of a working program for the securing of tangible results.

IMPORTANT RECOMMENDATIONS.

Through the activity of the standing committees, which were appointed by the presiding officer at the beginning of the session,—a committee on further organization, Dr. Frederick Burk of the United States, chairman; a committee on resolutions, Mr. Frank Milner of New Zealand, chairman; and a committee on international publicity, Col. Riley Allen of Hawaii, chairman,—a number of important recommendations were adopted. Those of chief importance were:

That the Pan-Pacific Union create a permanent department of the Union which shall take the initiative in stimulating education to common ends in the Pacific; which shall arrange further educational conferences and organize the work in order that it may be systematically carried out during the interims; which shall encourage scientific investigation and education leading to the development of common interests in commerce, economics, social and political understandings among the various nations; which shall establish in Honolulu a library containing complete files of data concerning the Pacific to be made available when needed; which shall undertake either directly or indirectly through co-operation of universities and other research institutions, a scientific investigation of the causes of war; and to provide for the exchange of teachers, especially in the fields of specialization.

That the plan be commended of the erection in Honolulu of a building containing an open-air theater, an auditorium hall, commercial museums, art galleries, etc., which shall serve as a permanent home of the Pan-Pacific Union, assuring continuity and stability to the successive Pan-Pacific Union Conferences which have been and will be held.

And that a resolution strongly commending the President of the United States in calling an international disarmament conference be adopted and be ordered transmitted to him.

To the preceding important recommendations the conference added, in conclusion, the following:

- (1) That there be incorporated in the educational programs of Pacific nations definite teaching inculcating the ideals of peace, and the desirability of the settlement of international disputes by means other than war.
- (2) That scientific research into the cause of war should be promoted by governments and educational agencies.
- (3) That a Pan-Pacific conference be held for the purpose of organizing a scientific survey of the population problem of the Pacific.
- (4) That all possible educational agencies and especially the subjects of History, Civics, Economics, and Geography be utilized to eliminate racial prejudice and antagonism, and to promote better understanding and co-operation among the peoples of the Pacific.

- (5) That the governments of Pacific peoples make adequate provision in their university systems for the scientific study of Pacific problems and for the dissemination of such knowledge among their respective communities.
- (6) That the Pan-Pacific Union institute machinery for the purpose of acquiring a body of authoritative knowledge for the practical furtherance of those ideals of racial inter knowledge, amity, and co-operation which are its main objective.
- (7) That the educational authorities of Pacific nations provide facilities for the inter-change of students and teachers, and that where such system has already been instituted it be further encouraged and developed.
- (8) That the governments of Pacific nations be asked to promote the production of educational films showing the resources, industries and general social conditions of their respective countries, and to provide adequate means for prohibiting misrepresentation of other nations through the use of moving pictures.
- (9) That the Roman alphabet should be adopted in all Pacific countries.
- (10) That there should be instituted by the forthcoming World's Press Congress a Pan-Pacific branch, commissioned to promote by medium of the press inter-racial understanding and co-operation throughout the Pacific.
- (11) That inasmuch as the growing unity of the world must ultimately embody itself in some form of supernational world-order endowed with effective powers to safeguard the peace of the world and the ideals of humanity, educational effort should be co-ordinated through all Pacific lands to make this great ideal a definite part of the national consciousness.

WRESTLING WITH PLACE NAMES.

EWCOMERS are by no means alone in the desire to know the meaning of many of the Hawaiian place-names with which we are more or less familiar. It is perfectly natural and is an encouraging evidence of growing interest in the land we live in, that this craving spirit for knowledge of place and people should take such form, and be met with more and more frequently. That these queries can not be answered at once is often disappointing, and discouraging to the inquirer.

Contributions on this subject have appeared in the press from time to time, but fragmentary, appearing at long intervals, and probably no attempt at their compilation has ever been made. An article on the meaning of some place-names in the vicinity of Honolulu, written in 1901, by C. J. Lyons, a man of unquestioned ability and Hawaiian scholarship, was a noteworthy, timely contribution.

A more ambitious attempt in this line was that of the Saturday Press, a weekly paper of Honolulu in the early 80's, which set out to meet this "long-felt want" by compiling a list of geographical names of districts, towns, bays, streams, mountains, valleys, etc., with definitions as far as possible. The book of land claim awards was the basis. All went well for several issues and then pressure was brought to bear on the translator to cease giving such aid to an opposition organ.

Upon annexation, a defined geographical list of all places throughout the islands was required by the Survey Department, at Washington, D. C., and the task was assigned to Prof. W. D. Alexander, at that time head of the local Survey Department. Prof. Alexander's list was published as Appendix 7 in the "Coast and Geodetic Survey Report for 1902." This partly defined list of twenty-six pages, double column, is now being materially extended, and an effort is being made to reduce the number of undefined words to a minimum. The

^{1.} Reprinted in the Hawaiian Annual for 1918.

amended and extended list is planned as an appendix feature to the revised Hawaiian dictionary now in course of publication, and the writer is quite ready to verify the statements of his predecessors in the same field, as to the difficulty of properly defining place-names without some knowledge of their features, or even of historic tradition of local, or introduced connection. As Prof. Alexander puts it: "It is difficult, if not impossible, to translate most names on account of their great antiquity and the changes which many have evidently undergone. Not a few may be translated in different ways. Some are common to other islands in the South Pacific and were probably brought here by earliest colonists, and have been used for centuries without thought of their original meaning."

Mr. Lyons has also shown that "some ludicrous mistakes have been made in giving definitions of Hawaiian names. The literal translation of two words taken separately may be very different from the idea conveyed to the Hawaiian mind by the combination."

But the wrestling for definitions of Hawaiian place-names, while perplexing to present-day students, reveal glimpses of ancient thought and custom, with occasional humorous interjections which relieve the tedium of search. A few gathered from the work in hand will perhaps prepare some would-be scholar for a number of surprises when the list is complete—words do not always mean what they say and are not what they seem.

Take the word "Helu-moa," a familiar section of Waikiki, for example. Its natural definition is "counting chickens," and that meaning of the word has been so published, but the locality is known to Hawaiians as "Chicken Scratching," and really takes its name from the manner in which the tract in ancient time is said to have been brought under cultivation. On order of the chief to prepare the ground for planting, the people, in the absence of proper implements, seized anything they could lay their hands on and literally scratched over the vast field like so many chickens. Hence the name.

The word "Pauoa" has still wider differences in interpretation. One meaning is "all bereaved," but according to Mr. Lyons it is a "side ear" to Nuuanu valley, while Kalihi valley on its other side is an "edge or border," a natural definition.

Hono, the root word of a long list of place-names with its many definitions, has caused much guessing to make it apply to the various qualifications it is found linked with, and to avoid as much as possible the "ludicrous mistakes" to which Mr. Lyons has referred. He defined Honolulu as a quiet harbor, from one meaning of hono being a hollow or valley with a bay or bight in front of it, and lulu a calm leeward spot. The term "Fairhaven," said to have been given to it by Captain Brown, of the English ship Butterworth, its discoverer, in 1794, is therefore not amiss.

Wai (water), by itself or with the article ka-, is another prefix to many place-names, not all of which are based on water as one might suppose at first glance, but it refers to the variety of liquid forms known to Hawaiians that is instructive and at times amusing. (It can be tears, milk, the limpid stream, or sap of a tree). Take for instance the familiar Waikiki; wai, water or stream; kiki, an old way of doing up the hair in a cone with lime or clay. Among other meanings kiki refers to squirting or spurting, as water through a small orifice. As this is not a feature of that vicinity, it is supposed to have derived its name from the gatherings of kiki hair-dressed folk in ancient time, when Waikiki by the stream of Apuakehau was the recognized court circle of the kings of Oahu.

Kapalama, a well-known section of Honolulu, might mean "the lama fence or enclosure," and the fact that the lama wood was sacred to temple uses the definition of the name has been erroneously given as "an enclosure for idols." The idols of its use, however, were far different in character and purpose, as the meaning of the name is given as "the place where concubines of the alii (chief) were watched over and guarded."

Place-names perpetuating the memory of ancient celebrities are rare, strange to say, preference evidently being given to events connected with the worthies, or to natural characteristics. Several names come down to us as a memorial of the graves, the water, or hill of so-and-so. Pele is remembered by her bones—Ka-iwi-o-pele—a hill in Hana, Maui, while Honolulu claims the mound where the chief Hena was baked in an underground oven in olden time, as also the water of Hao (Kawaiahao). Po-ka-i, a land section of Waianae, is said to be the name of an early voyaging chief from Kahiki, who brought and planted there the coconut from which has sprung its grove, famed in song.

Mythical names abound throughout the group, to perpetuate in folk-lore various points of interest. Moko-lii, the islet off Kualoa point, Oahu, is the name of the wizard rat that contested the road at that place against all comers, until a smarter wizard, named Kaulu, grappled with him and flew up into the blue sky and then dropped him, breaking all his bones. Kamapuaa, the hog-man, is not only identified with the Kaliu-waa falls, in Punaluu valley, but in Waianae and other parts of Oahu, and with other places in the other islands of the group. The islet of Molokini, off Maui, according to one tradition, is mythically the offspring of lizard parents, and Kawai-puolo, at Waialua, Oahu, is a reminder of the disappearance of its spring water by the Menehunes carrying it off one night bundled in ti leaves.

Names commemorative of shark (mano) and lizard (moo) deities are frequent, the latter in several names being confused with other meanings of the same word. Pa'u-pa'u hill, Lahaina, connected with a lizard by having a heiau built for its worship, gets its name from weariness of the servants in obtaining water for bathing the child of its possessor, whereby the name was applied both to the child and to the hill.

The interchange of letters in words, while lending poetic value to the language in chants and meles, adds material diffi-

culty to the interpretative study of names, whether of persons or of places.

The Star-Bulletin of July 13, 1920, gave two versions of "How Lahaina Got Its Name," which merited more attention than it received. The first version differs from the well-established tradition in assigning the point of departure for Kahiki, as from Lahaina, instead of from the west point of Kahoolawe. It also introduces us to the pioneer Ad Club of the islands, boosting the charms of Maui, in the eleventh century. But their slogan, "laha aina" (proclaiming land), though dropping a superfluous a to form the new name they had adopted, would not give us the accent on the last syllable as Hawaiians pronounce it.

The second version sounds more reasonable, and aids somewhat in our search for the time when the name Lahaina was substituted for its former one, Lele. The newer name clearly shows it to be commemorative of a notable day in the history of the place. In the time of Kakai and his brother, Kakaalaneo, about 1630, it was still known as Lele. When after this period the change occurred is not clear, but analysis of the name, as properly pronounced La-hai-ná, would be "a day of calamity, or cruelty," and such an experience is known to have befallen Lahaina in the battles of warring chiefs waged for supremacy, more particularly following the death of Kekaulike, in the invasions of Alapainui of Hawaii, about 1735. But the change of name must have taken place earlier than this date.

Whether therefore the name originates as an exclamation of a bald-headed chief at the severity of the sun's heat, as given in the paper referred to, or is an expression of the populace at the mercilessness of the victors, it was an historic day to be remembered by name for coming generations.

One would hardly expect to find place-names reveal glimpses of social life, yet a contrast of table manners, even, is shown in some names met with. The name "Ai-kauwa" (slaves eating), conveys to the Hawaiian mind not only the lack of care in the preparation and serving of food, but also

the crude manner of eating on the part of the slave class of old; while "Maona-ko-malie," which means to "rub easy after a full meal," is a reminder of certain hearty, if not gluttonous eaters of the leisure class that at times called for the massage service of attendants, in order to re-indulge in the good things of a feast.

The name of "Nana-kuli," a section of Waianae, meaning "knee examination," is said to relate to an incident in the travels of the famous Kuali'i, when his attendants wished to see and press his knees, to relieve the king's fatigue after the journey.

The name of Maui's famous valley, Iao, is said by a venerable Hawaiian to have originated in the very ancient time, when the people desiring light throughout the valley instead of its prevailing darkness called, "I ao" (for daylight), and this name has been applied to it ever since.

The frequency of word contractions and substituting letters—a common trait, causing therefore no surprise—appears to afford ready ground for native pundits to account for difficulties of solution, real and imaginary. Thus we have the suggestion that Kaua'i might originally have been Kaula'i, and would mean the same, "placed to dry." Leahi, the native name for Diamond Head, is said to have been originally "lae-ahi," the crest of the fish ahi. This meaning is preferable to the mistakenly given one of "fire-wreath," which would be "lei-ahi."

NEW Y. W. C. A. Homestead. This new and spacious structure, the gift of the Atherton family, with the grounds of "Fernhurst," formerly the Atherton home, on King St., as a memorial to Kate Marion Atherton, was dedicated Sunday, November 13th, in the presence of some 200 Y. W. members and friends. The new home is three stories in height, with built-in lanais; has thirty-five bedrooms, roomy halls and stairways, and has been constructed specially to meet the needs of the Association with tropic comfort.

LEIS; THEIR VARIETY AND CHANGE.

AWAIIANS have a very attractive custom of decorating themselves with floral or other leis on any eventful occasion. The usage is readily noticed by all newcomers, or passing strangers, and its predominance at the steamer dock, on departures, give a lasting favorable impression as parting friends are seen bedecked, oftentimes, with tier on tier of hat and neck wreaths and garlands, as a "bon voyage" decoration. At least this is the principal feature into which this national custom has gradually drifted, the origin of which is to be accredited to King Kalakaua in the early part of his reign, and though the materials of which the leis may be made have changed, as to fashion, the deftness of manufacture of these aloha tokens is by necessity, simply transferred, as will be shown, from natural to artificial, the animating spirit being the same.

It may enlighten some readers to present here the variety of leis that have appeared from time to time, the materials of which they are made, and the several uses in the one purpose of personal adornment.

In the first place, the word *lei* means wreath for head, hat, or neck wear, as also garland, festoon, or strand; defined by Andrews as "any ornamental dress for the head or neck."

Hawaiian feather work is acknowledged to excel that of any other race. Judging by the collection in the Bishop Museum, of this city, leis take a prominent place, and embrace, in part the bright yellow feathers of the o-o, the orange-yellow mamo—and black also from these same birds,—the red iiwi, dark crimson apapane, gray-green o-u, pale green ma'o, and others in individual or sectional colors, or mottled, or in spiral form This class of round feather leis are also seen on anniversary occasions which bring out the native women's societies, many of whose members wear these heirlooms. Otherwise the genuine ancient feather wreath is seldom met with. Feathers of the domestic fowl, duck, and pigeon have come into like use, dyed

as substitutes, more particularly in the yellows, and good imitations are (or were) made from worsted yarn, shredded silk, plush, and bunting. In more recent years the introduced pheasant, and the peacock, furnish favorite feather leis in flat form for hat bands. These flat leis are occasionally seen in the curio stores, but the others are now rarely found in market.

Flowers naturally were the common every-day wreath material, and the variety was limited more by the obtainable than the possible, for Hawaiians possess the knack of utilizing flowers and other material that others would deem worthless. In illustration: Dyed sisal, or manilla rope strands, make good imitation ohia blossom leis, and one of the most showy wreaths is formed of the carnation flower broken in its calyx to shagginess and affixed upon a band, usually for the head, or hat, rather than for the neck, though no restrictions prevail. The attractive and fragrant carnation leis were more popular a quarter century ago than of late years, and its native name, "poni moi" (carnation), connects it with that memorable event of Kalakaua's reign, under the mistaken Hawaiian notion that carnation and coronation were one and the same. This lent it royal favor and popularity for many years.

Before Honolulu gardens were infested by the Japanese beetle (Adoretus tenuimaculatus), rose wreaths, and garlands and festoons were in plenty, decorating even the horses in a cavalcade, as used to be seen on Saturday afternoons and holidays. And in its season, the showy red lehua blossom leis were not let go begging for popularity, especially if any luau was under way. The yellow ilima, a *sida*, though Oahu's flower, was more in evidence several years ago than of late.

Since California authorities placed their ban on all plants and most products of Hawaii, excluding them from being brought in to the State for fear of insect pests, the floral profusion in the lei market and at steamer departures has been greatly modified, but the spirit and activities in the observance of the custom of decorating departing friends and guests finds its expression in paper leis. At first this was confined to the yellow ilima, and proved a very successful substitute of more durable quality. This led to the adoption of other and variegated colors, for gayety rather than an imitation floral product; crepe paper furnishing the material.

Old residents may recall the white paper star lei that was in vogue here in the '70's, commemorating the Transit of Venus of 1874*. They were appropriately called Hoku (star), and were made of stiff, white paper, forming many points, to convey the idea of scintillation. They were fashionable for some time, for head or hat decoration, and were known to foreigners as Venus leis.

Visitors are favorably impressed with this pretty national custom, and lend themselves readily to lei decorations on festive occasions, or at departure. It is also coming in vogue as a welcome token to distinguished arrivals.

Various causes combined to bring about the change noticeable in the lei market, the substitution of the artificial for the real. Of the genuine feather product, both the birds of choicest plumage, and the skilled bird-catchers, are practically extinct, and the motive for the periodical tax tribute in rare feathers passed with the old chief's regime.

California's safety law, already mentioned, led to the more convenient and agreeable indoor work on the paper product, rather than the laborious outdoor cultivation of the natural flowers. The artificial, moreover, was found to possess advantages. One might be buried out of sight by a profusion of leis, and yet not be compelled to bear a heavy burden, and as a token of aloha they were more enduring than flowers, though lacking their fragrance. This in turn, as also the ravages of the beetle mentioned, has reduced the flower culture of the natives, both in area and variety. Another change is threatening this as a Hawaiian industry as large stocks of crepe

^{*}This rare event brought hither, as one of the few prominent points of observation, an English Expedition under Capt. G. L. Tupman, R. M. A., who established stations at Honolulu, at Kailua, Hawaii, and at Waimea, Kauai, the results of which were highly satisfactory.

paper wreaths may be found at most of the florists' shops and curio stores, the work of other than Hawaiians.

The former profusion of flower leis, with fragrant maile, awa-puhi and fern, is recalled at intervals, and revived on special occasions. The native taste for such personal adornment is inherent, and aids in the variety of substitutes for both feathers and flowers. Another long list of leis is shown in the variety of the sea and land shells, and of seeds, that may be found with the street vendors and at all curio stores.

Shell leis for hat and neck wear, and in long strands are frequently met with, confined principally to the variety of small beach and land shells, of which the rare white Niihau shells of the genus Columbella, and the iridescent Tasmanian shells of the Cantharidus genus, in long neck strands are favorites. Flat hat-bands and even belts are formed of the white, and speckled-brown bivalves of the Picten genus, in single, double and even triple or more in width, known as the Waimea shell, though found also at other parts of the islands. The vari-colored land shells, Achatinella, in hat-bands and necklaces are also occasionally met with.

Of seed leis the variety known to the market is large and naturally changeable, though other than season must account for the utter absence of some and rarity of others that were in vogue in former years. The majority of these seed leis are in long chains for neck wear, others again are to encircle the neck as a string of beads, and may be had of one kind, or mixed in variety and color, with or without alternating sections of beads in contrast or pattern.

The shiny brown mimosa seed of many years ago is still a favorite, not only as neck leis and hat bands, but is made up in various souvenir articles, such as bags, belts, napkin rings, etc. Job's tears, a round grayish seed is another kind always in stock, and in long strands. Red wili-wili, black-eyed, and white-eyed susans, canna, four o'clock, moki-hana, gray ka-ka-lai-oa, kolu, certain palm seeds,—one furnishing a tiny monkey-face coco-nut of small marble size, which takes a high polish,

giving a rich brown necklace of great rarity. By the introduction of flowering trees and plants, this seed list is being readily extended and now embraces the Golden, and the Pink shower, Inga, Poinciana regia, Monkey-pod, Elephant ear, Bird of Paradise, Soap seed, and several others.

Leis of hala (pandanus) drupes, of yellow and red varieties, were ever a Hawaiian's favorite in its season, being showy, odoriferous, and usable for several days. They are occasionally in market, usually entwined with a strand of the fragrant maile, and are worn on the head, hat or neck.

The jet-black kukui necklace of former years is now seldom seen, though not for lack of nuts obtainable. These used to be had varying from about a half-inch to an inch in size of nuts, their naturally rough surface being ground to a polish in round, or many sided form. Immature nuts furnished a mottled-brown adornment.

Innovations appear from time to time, for Hawaiians will make leis of any and everything, the latest in hat bands being of plaited lauhala in light and dark brown shades, some in prettily contrasted pattern with fern-rib.

KU-A-NU'U-ANU AND PA-KA'A.

IIEN Keawe-nui-a-umi succeeded to the throne of his father Umi, on Hawaii, and dwelt in picturesque Waipio valley, as had his illustrious ancestors of several generations, he had as his kahu and favorite servant one Ku-anu'u-anu, a man from the common people, but of such skill and ability as to mark him above his fellows.

The term kahu is applied to a guardian; a child's nurse; a care-taker of person or property, hence, connected with the king to have not only the care of his royal master, but of his people also. It is likely that, as prince, Keawenuiaumi had grown up under Kuanu'uanu's guardianship, for this honored position was well known not only throughout Hawaii, but to the farther borders of the group, as a wise administrator in behalf of his

lord. He was known also as skilled in all the games and athletic sports of those days, and an expert surf-rider.

In course of time the idea of change took possession of Kuanu'uanu and he outfitted himself for a sight-seeing tour of the other islands. Selecting a trim-looking single canoe from among those of the royal fleet, one that could be handled alone, he set sail from Waipio and shaped his course for Maui, landing at Lahaina, where he was received with chiefly honors as a worthy emissary of Hawaii's king. In the entertainments that were given, he in turn performed various feats for their amusement, and from time to time tested the famed surf of Uo against the local surf-riding celebrities.

From the charm of Lahaina he set sail for Oahu, and landed at Waikiki, where king Kakuihewa held his court. The news of this distinguished arrival was quickly spread abroad, and, as the intimate attendant of the distinguished king of Hawaii, he was welcomed and feted with the best the people had to offer. Satisfying himself with a briefer stay at this point he boarded his canoe and continued on his way for the tour of Kauai.

It was not till he had made a complete circuit of the island that Kuanu'uanu was satisfied to land and haul up his canoe at Kapaa, and cast in his lot with the people of that section of Kauai. His presence in their midst interested them greatly, for his fame, which had preceded him, brought him a continual line of visitors to learn of Hawaii, its chiefs and people.

Among the customary callers was a very prepossessing maid of the village who showed warm interest in the stranger, who, in turn, was pleased to entertain her with his narrations of life at the sun's east. A spell of mutual regard for each other gradually wove its entangling web, so that ere many weeks passed by he claimed La'a-mao-mao, the belle of Kapaa, as his own, without the knowledge of her parents, who were well-to-do but not of chiefly rank. For a season Kuanu'uanu and La'amaomao basked in the sunshine of each other's love, pleasure bent and care free, but before many months rolled around a royal mes-

senger arrived upon the scene to summons the kahu of Keawenuiaumi back to the service of his lord.

When Kuanu'uanu heard that he was wanted to resume the old-time relationship, his affection for his lord and master overcame his new love, and he hastened to obey the summons to return. Sending an attendant for La'amaomao he told her of his king's command, which it was his duty to obey, though it cost their separation. This quick ending of their days of joyous sunshine was a heavy blow, and cast a gloom over La'amaomao that deepened as the time of separation neared, for they had indications that in due course another would join her in grief, to look in vain for a father's care. The subject was discussed between them, and plans for the future considered by Kuanu'uanu, for he said to La'omaomao: "Should you give birth to a girl, name her on your side, but if it is a boy, call his name Paka'a, after the crackled, scaly appearance of Keawenuiami's skin, from his excessive use of awa."

Kuanu'uanu was a man of fine striking appearance, tall and spare, with fine teeth, and hair tinging with gray streaks. This, with his Hawaii fame, made him a great favorite as he traveled up and down the land. As to La'amaomao, she was the idolized beauty of Kapaa, her charms winning the admiration of all the village gallants.

When, therefore, Kuanu'uanu departed for Hawaii, loud and long were the wailings of the many friends he had made in his sojourn with them, but La'amaomao was disconsolate in her grief; she stood up and went forth to tread the lonely paths, weeping bitter tears.

In course of time she gave birth to a boy child, and more than ever the father's absence was mourned, for La'amaomao's parents showed great displeasure and disappointment to their high hopes. In those days, parents of attractive daughters expected to benefit by securing a son-in-law with landed estates, whereby their bones would be preserved. La'amaomao therefore went forth from the parental home, accompanied by a much loved younger brother, named Ma'ilou, and dwelt down

by the shore. Ma'ilou was a bird-snarer by profession, whereby he was the mainstay of the new household.

The child was named Paka'a, as his father directed, and he was nursed and reared without untoward incident until he was about four years of age, at which time a child can speak clearly. It was then that he surprised his mother with questions relative to his father, as to who, and where was he. She told him that Ma'ilou was his father. Paka'a replied: "You are a large woman; Ma'ilou is a small boy; he is perhaps not my father." From that time the subject was so frequently referred to by the child that the mother was troubled, and finally told him that: "Where the sun rises and whence the wind blows, is the dwelling place of your father."

Now Paka'a was developing clever and intelligent. While yet a child he was thoughtful and observant, thus educating himself by what others achieved in this or that branch of work. He also had the ability to formulate and carry out new ideas, and finding himself capable of a certain kind of labor at one time, he said to his mother: "Why are we not now eating flying fish? We receive a few once in a while, while our neighbors have a continual supply."

La'amaomao replied: "Perhaps it is owing to the laziness of your uncle, Ma'ilou, who devotes his whole time to bird-snaring in the mountains." Paka'a asked permission to accompany the fishermen on their next trip, as he thought he might secure forty himself.

"Small as you are, yet you want to go out fishing? You might get drowned for you do not know how to swim," said his mother.

"I can go, provided you ask Ma'ilou to assist me carry to the shore that fine long canoe (kialoa) on which he sailed not long since," said Paka'a.

"What a persistent child you are," said La'amaomao. "To-morrow, then, go out fishing for us, may be you can catch four, you clamorous child." This permission was given with great reluctance. Paka'a at once proceeded to get the canoe

outfit in order, and while so engaged he noticed the fishing fleet start out to make a dragnet haul of flying-fish. He watched all their maneuvers closely, and as they returned he noticed that they paddled all the way.

It is said that Paka'a was the first to introduce the canoesail, which originated on Kauai and afterwards spread to all parts of the group.

Upon Ma'ilou's return at dusk from his day's outing, with his catch of birds, La'amaomao said to him: "Do not be in haste in the morning for an early start to the mountains. You had better first carry the canoe of the boy to the beach, as he has asked to go malolo fishing. I have tried to dissuade him but he has been very obstinate and persistent. Perhaps that is a peculiarity of his father."

"Look here," said Ma'ilou, "we are having birds for food, and occasionally some fiying-fish, still this stripling asks to go."

"You two must not withhold me," said Paka'a, "but let me go for our supply, maybe I will secure a number of fours, better than the fragments we occasionally get from others."

The boy won his point, and with the help of Ma'ilou the preparation of the canoe was completed for the next day's service. In the morning, together they bore the canoe to the beach, and seeing that everything was in order Paka'a shoved off, leaping into the canoe as it floated, and handled his paddle as if he had had long training. He continued on until he had joined the fishing fleet, when they all set out together.

While he had been approaching, the men noticed and commented on his being permitted to come alone, presuming the uncle was off, attending to his regular vocation of bird-snaring, as usual.

Nearing the place they judged suitable for a favorable haul, the director commanded the canoes to take positions. As the net was cast, the canoes with the ends arriving first usually obtained a number of fish in their rounding, but on this occasion they got none. Paka'a, with his small canoe, had con-

tinued on and shot between those of the fleet. The men tried to keep him back, but he kept dodging about until he had secured a supply, and followed the dragnet up to the time of the haul, when the fish were distributed, Paka'a's catch by hand being included.

When they were ready to return, Paka'a spoke up, asking who was their champion that would wager him to a race? "Let us canoe race," said he, "and if you are beaten by me your fish will become mine." A large man in a single canoe accepted the challenge. Paka'a asked how many fish he had. "Two kaunas" (eight), said the man. Paka'a replied, "I will not wager with you, your fish are insufficient, for I have two kanahas" (eighty).

Then the men on the other canoes said: "Do you care if we bet? If each of us contribute ten fish (and there are eight of us), that will match your two forties." "That depends on whether you have all agreed to the race; you see I am but a small boy, my set of teeth not being fixed, while you are full grown men. You have no reason to fear me," said Paka'a. "We are accepting your challenge," they replied.

Paka'a then said: "Fetch me your fish." They refused, saying: "Perhaps it is better that we hold the stakes." The lad objected to this, saying: "You well know that I have not strength to resist when you call for the fish if I am defeated, but if I win you may withhold the fish when I come for them."

"It is agreed," they answered, and counted the number into his canoe, feeling it was an easy victory for them, both in number and size, compared with the boy. When all was ready they started, the men plying their paddles with strength, to attain speed, while the boy loitered, and to their amazement his canoe was headed in another direction instead of following them. As they gazed, wonderingly, he stepped the mast deliberately to spread the sail, and adjusting all things to this purpose he seated himself and paddled backwards in turning the canoe for the wind to fill the sail.

By this time his opponents were almost out of sight to him.

but his full-bellied sail, noticed by them, plainly told how rapidly he was gaining on them, so they dug their paddles deeper in the water, to speed on.

Paka'a soon caught up with them and noticed the vigor of their paddle strokes, while he sat still, with paddle as rudder, guiding his swift-sailing canoe. He voiced a boastful chant as he passed the fleet, which greatly angered the men, especially as they strove in vain to match his speed. He landed far in advance of them, and was surrounded and eulogized by the people for his skill in handling his canoe. There was no disputing the race, and the canoe load of fish was Paka'a's, in which he rejoiced, while his competitors were mute with chagrin.

Some two years after this, Paiea, king of Kauai, announced his intention of touring his island, and follow it by visiting the kings of the windward islands. Such an important event required extensive preparation on the part of chiefs and retainers, as also hangers-on and commoners in his train, which effected every village and hamlet.

Paka'a observed the activities of preparation, and questioned the caravans of people passing through his village thereon, which wakened in him a desire to join this pleasure-seeking journey of the king. He so expressed himself and went home to lay the matter before his mother. When La'amaomao learned his desire she was troubled and sore at heart that her boy would follow Paiea and retinue. After much beseeching she finally said: "It would perhaps be wise that you do not go. for you will be reprimanded and imposed on by the king's servants." He could not understand why ill-treatment would be accorded him for faithfulness in such duties as became his small body, other duties belonged to the adults. So, after much cautionary advice she consented to his going.

Paka'a managed to join a chief's party to accompany the king around Kauai, though in a menial capacity, to be ordered here and there and be neglected at times in the division of food. But he forebore hardships for the sight-seeing benefit this tour-

ing the island afforded him, and to witness the festive occasions of the king's receptions at various points when all the retinue were feasted by the populace and entertained with sports, regardless, according to an old saying:

"The caravan eats excessively and behaves superciliously, but when repairing to your own homes you have to prepare your own" [food].

Several months were spent in circuiting Kauai, and after a short rest and outfitting for touring the windward islands, the royal party set sail for Oahu. Paka'a obtained his mother's consent to continue his travels with the king's retinue. Again cautioning him to obedience and forbearance, she said. "In case you visit Waipio, Hawaii, where dwells your father, be observant and listen. Should you reach Keawenuiaumi's know that you have arrived at your father's residence. Look for two old, gray-haired men, seated. The one with a feather cape over his shoulders, an ivory necklace on, and fan in his hand is your lord Keawenuiaumi, and the one sitting by him with a fly-brush is your father. Do not hold back in fear, but go forward and sit on his lap. Should he ask your name, tell him it is Paka'a, the crackled skin of Keawenuiaumi, from the use of awa. Your father is a chief of Hawaii," said she, "a personal attendant on the king. Here is an article I put into your keeping, this gourd, inherited from our ancestors. Its value lies in its wind power. If in your sailing with the king, it should fall calm, lift the lid slightly and a gentle breeze will result. Further exposure will produce fresh gales."

This wind-gourd was strange to Paka'a, but he took care of and valued it, and named it after his mother, La'amaomao, and it became famous throughout all the land. Outfitting himself with fish-line and other necessities, which he packed with a bundle from his mother in another gourd, he set forth to join the company.

When the large fleet of canoes and everything was ready the journey commenced, an extensive retinue accompanying Paiea. So numerous were the canoes required for this royal progress that the channel-waves were calmed by them in crossing. Arriving at Oahu the customary courtesies of its chiefs were extended the visiting party; the warm welcome and kindly treatment of feasting and entertainment was accepted as auspicious of the journey throughout. The sojourn ended, they sailed away, attended by many Oahuans, and touched at Molokai. From Puko'o the party visited Lahaina and Hana, on Maui, spending several days at each place, then crossing the channel to Hawaii.

Arriving at Kohala, a portion of the army of sight-seers landed to travel overland to Waipio, while the others continued on by sea along the coast to the famed valley. Upon Paiea's landing he was warmly welcomed by Hawaii's king, and escorted to his residence with regal pomp and splendor. Soon the valley was darkened by the smoke of the many ovens in preparation for baking the food for the season of feasting to be inaugurated.

At the meeting of the two rulers affectionate was the greetings and rejoicing between them, as also the chiefs. The people of Waipio and adjacent lands and valleys brought their ho'okupus (royal tributes), and for a time feasted the visitors till they were nauseated. But as their stay was lengthy the food supply of the valley steadily diminished, and the majority of the common attendants in Paiea's train bordered on hunger. Becoming acquainted they had to seek their food, it no longer sought them. Paka'a felt the changed conditions, for besides suffering hunger he was made to realize his menial position among them. He noticed that the king's immediate attendants were the only ones now in the enjoyment of Hawaii's bounty, so recalling his mother's instructions relative to his father, he determined to make himself known in the presence of Keawenuiaumi.

Announcing his bold intent, his companions told him that certain death would result from so reckless a disregard of the sacred kapus that hedged the king. But Paka'a was not to be

dissuaded, saying: "This body will be thrown on the mercy of those gray-haired men; should I be killed that would be my misfortune, but it were better to suffer death in their presence than to die of starvation." He then opened up the bundle his mother had given him, and arrayed himself for the first time in its white (ninikea) loin-cloth, and cape made of kalukalu (a fine sea-grass), and set forth courageously.

Avoiding the well-guarded entrance to the king's premises Paka'a sought entry by a path in the rear. As he approached the place where sat the king and Kuanu'uanu he was detected by the guards, who set up a loud cry at the trespass of the kapued precincts, and they rushed forward to kill the intruder. But Paka'a ran and stood undaunted before his father, and taking the fan from his hand he fanned him, then sat on his lap. Kuanu'uanu opened his legs apart for Paka'a to fall through, but the lad reseated himself on the right thigh. Instantly Kuanu'uanu asked, "Are you Paka'a, my son of the sight-seeing sojourn on Kauai?" "Yes," said he, "I am Paka'a, who was born of La'amaomao." The father first embraced him, then turning the head of the child of his old age he rubbed noses with him and wept loudly.

The king asked: "Whose is this child?" Kaunu'uanu replied: "Mine indeed, begotten on my pleasure-seeking voyage, at Kapa'a, Kauai. Paka'a is his name, from the scaly appearance of your skin through awa drinking; this is he." Keawenuiaumi then understood.

Forthwith the rumor of Paka'a's acceptance at court was spread abroad and reached the ears of Paiea and attendants from Kauai. Those who had ill-treated the lad repented of their misdeeds, fearing severe retaliation through Paka'a's coming into royal favor, but with the wealth and attention showered upon him since his recognition, he was not excited nor vindictive, but maintained the kindly disposition for which he had been noted.

Paka'a's traits of observation and foresight led him to profit by the opportunities and experiences as a favored attendant, with his father, upon king Keawenuiaumi. Already he was wise beyond his years, and soon became skilled in cloud and star observances for directing operations on land and voyagings at sea. In Kuanu'uanu's administration of the land matters of the king, the lad proved an able co-worker. He thereby became a favorite with the king, and under his father, was empowered to apportion lands to those of his fellow-voyagers that had preferred to remain on Hawaii when Paiea, their king, and attendants returned to Kauai.

On the return voyage of Paiea, which was attended with great honor, Paka'a forwarded supplies of good things to his mother, a custom he faithfully observed as opportunity offered in this and that year.

As time went on Kuanu'uanu failed in health, and at his advanced age, his duties to the king were gradually assumed by Paka'a, to whom the father gave the following instructions as he saw his end was near:

"Keep close vigilance upon the king and obey his trivial and important behests. Be not wasteful of the food left over from his meals; should it not be early required dry it in the sun and then put it in a gourd. Economize in the use of fresh fish; of awa, fresh or dried. Guard the large man and the small man; the chiefs and the commoners. My lands are yours, but observe the will of your master."

Keawenuiaumi heard all this advisory transmission of duties from father to son, and he was touched by the solicitude of his faithful kahu for his welfare in dying moments. And the affection and regard of the king toward his efficient personal guardian was manifest in his grief. Paka'a might not be like him.

The Court and all Hawaii was saddened by the death of Kuanu'uanu, and the whole kingdom mourned for the loss of an able administrator. Following this period of sorrow adjustments were made for Paka'a's promotion as chief steward, overseer and body-guard of Keawenuiaumi, the king, and proved a life-long, worthy successor to Kuanu'uanu.

THE NATIVE LEADERS OF HAWAII.

Their Contribution to the Cause of Christian Civilization—the Kuhinanui and Privy Council.

BY THOS. G. THRUM,

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TO APPRECIATE the share their influence exerted in the Christianization of the nation, it will aid to a clearer understanding of native leadership in Hawaii at the advent of the missionaries, to trace back in history for the establishment of that nobility and recognized order, which was the basis of their government.

The first established law states: 1"The subjection of the people to the chiefs, from former ages down, is a subject well understood, as is also a portion of the ancient laws. That subjection and those laws are not discontinued," among which was the Privy Council,—a body of chiefs—with whom the king conferred on all questions of State, and the kuhina-nui (premier) for their ratification, and without whose approval no royal decree was valid—a distinct legal system peculiar to Hawaii. The body of councillors is referred to far back in the reign of Umi, of Hawaii; of Kahana, of Oahu; and a like body was prominent in the wars and government-forming period of Kamehameha the First, and subsequently. Their province was to advise with the king on all questions affecting government affairs, including royal espousals of political design. The office of kuhina-nui was an after safe-guard, established by Kamehameha by naming Kaahumanu, his favorite wife, to act jointly with Liholiho; this was a wise provision, owing to his son's dissolute character.

When the written laws were first formed, this warranty feature was embodied, as follows: "The premier shall be the king's special counsel in the great business of the kingdom. They shall not act without the knowledge of each other, and the veto of the king on the acts of the premier shall arrest the

^{1.} Hawaiian Laws, 1842, Chap. 1, p. 21.

business. The king may transact all important business of the kingdom in person, but not without the approbation of the premier."²

Chief lines were hereditary, with rank descending through the mother, as a rule, hence the prominence of women in public affairs, and though chiefs were of various grades, no commoner could ever rise thereto, nor could a chief be deprived of his rank, even though he became impoverished. Therefore, with this wide distinction between the chiefs, nobility and commoners, and the utter subjection of this lower class for ages past,—with the help of kapus and priestly ordinances—the chiefs were held in awe, were looked up to, and their behests obeyed absolutely, so despotic was their sway over the masses.

It was wise, under such prevailing conditions, that the seed-sowing should begin in the chiefly ranks, and in fact, by inference, was so ordered, when Liholiho forbade the teaching of the common people, saying: "You think I want my people to know more than I do? Aole!" (No). Here was a case of working from the top to reach the lower class. The first sermon, the first lessons must be before and among the king and chiefs, and it is coincident that the first convert was the highest in the land. Nor were the chiefs backward in claiming all services that could be rendered them. Their rank and the custom of ages waranted this among their own race, hence they naturally looked for like compliance in strangers.

Though the first interview of the mission delegation with the king and chiefs for royal sanction, to land and enter upon their labors resulted in "hope deferred," they were kindly received and interest was awakened to know the varieties of work contemplated. The king was attended, among others, by Kalanimoku, a councillor and his prime minister, who, with several women of high rank, had greeted the new comers off Kawaihae. Kamamalu, one of Liholiho's wives, was also present and is said to have interceded on behalf of the teach-

² Hawaiian Laws, 1842, p. 19.

ers. The absence of Kaahumanu, the premier, on this occasion, as also an opportunity to confer with his councillors, was a just reason for indecision, more especially as it was for a substitution of the heathen rites and kapus abrogated and the gods he had thrown down; an overthrow, furthermore, sealed with the blood of battle at Kuamoo.

In the wild indulgences that followed this release from their age-long restraints, the people but followed their leaders,—the chiefs, priests and nobles—hence, from ancient inherited custom and recent practice, it was incumbent upon the king and chiefs to favor the introduction of a new and higher faith—the establishment of the Christian religion. It is generally stated that Liholiho's renunciation of idolatry paved the way for Christianity in Hawaii, but while the pagan beliefs of the race were shattered, skepticism and hardening influences more formidable were being substituted.

At the subsequent conference for permission to land, agreed upon by Kaahumanu and the king, Kalanimoku was again present, and Keeaumoku (brother of Kaahumanu), with others, when the plans of the proposed work were again related and discussed, resulting in another deferred answer, although granted off-hand the following day for a year's trial, with permission to locate on the different islands, with such grass huts for shelter and protection as could be afforded them. Thereupon the Kailua station was occupied, April 12th, by Rev. and Mrs. Thurston and Dr. and Mrs. Holman, while Kanui and Hopu were taken into the king's train. The rest of the mission band was moved on to Honolulu, and by agreement with Governor Boki, took up their residence ashore April 19th.

Among the high chiefs and chiefesses at Kailua to participate in the new movement, and who manifested interest at the sight of white women and children for the first time, besides those named at the conference, were: Kuakini, a brother, and Namahana (known also as Piia), a sister of Kaahumanu; Kamamalu, and Kinau, daughters, and Kekauluohi and Kalakua, relicts of Kamehameha; Hewahewa the high priest, and the

little prince Kauikeaouli and princess Nahienaena, and likely their mother Keopuolani, leaders of the nation, the most of whom became prominent aids in the cause of Christianity among their people. By birth rank, close connection by relationship to this illustrious group, and pre-eminently capable of leadership was ex-Queen Kaahumanu, the premier. She was, at first, indifferent and imperious toward the missionaries in their intercourse with her, but they labored patiently to win her confidence and influence in the work before them.

Her marriage in 1821 to Kaumualii, the ex-king of Kauai, and his son Kealiiahonui, politically linked the group, a step attributed to Liholiho and his councillors³. In a serious illness which befell her shortly following, the ministrations of Mrs. Bingham softened her and wrought an awakening, and with her sister Namahana, manifested an interest in religion as she recovered health⁴. Establishing the laws of Christian marriage she put away Kealiiahouni, her dual husband, and in a tour of Hawaii she caused two collections of idols to be publicly burnt. It was not till 1825, however, that she made a public profession of her faith, and became warm hearted and affectionate in manner, a change so radical that the people termed her the "new Kaahumanu." Her sister Namahana, several other high chiefs, and Kalanimoku made public profession at the same time, as also blind Bartemeus.

At the departure of Liholiho and Queen Kamamalu for England, the administration of the government fell to Kaahumanu and her prime minister Kalanimoku, but with much relief from the royal-counteracting evil influences, which had been a sore trial. With earnest effort to further the cause of religion and education, moral laws and regulations were promulgated,—in some cases proclaimed by the premier herself—and, by precept and example, she exerted a powerful influence not only among the chiefs and nobility but among all the people, and made several special tours on the different islands for

^{3.} Stewart's Residence at Sandwich Is., New York, 1828, p. 98.

^{4.} Bingham's Sandwich Is., Hartford, 1848, pp. 148-9.

this purpose, as also sending bands of teachers out to needy sections.

Thus are found grouped with her in higher aspirations and seeking instruction, Kamamalu (known also as Kamehamalu), Kapiolani, Kekauluohi (or Auhea), Keopuolani, Kalakua (or Kaheiheimalie), Kinau, Kekauonohi, Liliha, Keoua, Namahana (or Piia), Kapule and other chiefesses, and such staunch characters as Kalanimoku, prime minister; Kuakini, governor, and Naihe and Kamakau, of Hawaii; Keeaumoku, Hoapili and Kaikioewa of Maui; Kaumualii and Kealiiahonui of Kauai; Kekuanaoa, Paki, John Ii, Haalilio, Kahalaia and others, of all Oahu, all influential, leading characters, and a number of whom, overcoming the evils of intemperance, banded themselves together for its suppression.

The zeal of Kaahumanu, Kinau, Kalanimoku, Kuakini, Hoapili and other governing chiefs for the observance of the laws, as proclaimed from time to time, against idolatry and various evils was uncompromising, and in their execution naturally met with serious opposition till well organized courts of justice enforced their maintenance.

Kalanimoku, known also as Kalaimoku, was a chief of sterling character, an able co-ruler with Kaahumanu, aggressive in all good works and such a terror to evil doers as to become known as the "Iron Duke." His sympathy and support of missionary effort was much easier than that of Kaahumanu's, and with Namahana, long seriously inclined, doubtless influenced the premier so that they all took their stand together. Prior to this he aided the hymn work of Rev. Wm. Ellis, and also in church and house building as the increasing body of workers required. With nine others he instituted "kapu meetings" shortly after the arrival of the missionaries, and issued orders that only moral and upright sincere seekers after truth should attend. These meetings were largely attended, women taking the most interest therein.

In the suppression of the Kauai rebellion the conduct of

^{5.} Anderson's Sandwich Is., Boston, 1884, p. 60.

Kalanimoku and Kaikioewa was most humane, and in vast contrast to that of other wars they had experienced, expressly directing that no harm should befall George Kaumualii, its misguided leader.

Kaahumanu's mantle fell worthily upon Kinau, not only as premier, but defender also of the new faith, though lacking her mature character and dignity. Kinau's share in the administration of government affairs came in the troublous times attending Kauikeaouli's assumption of his kingship at an early age. At a crucial turn of events, when under bad influences the king refused to heed the counsel of Hoapili, or the plea of his sister Nahienaena to listen and be guided by the counsel of his true friends. He intended (and was expected), to cut loose from restraining influences by proclaiming Liliha as premier, but in his address he strangely hesitated, then confirmed Kinau in the high office. She knew her power, and with governors Hoapili, Kuakini, and Kaikioewa, endeavored to stem the tide of lawlessness. She valiantly withstood the threats and abuse of opposing officials, and held a check on royal extravagances.

There were three things of importance the king desired as soon as possible, viz., a royal yacht, a palace, and a new, substantial church. Kinau and the king agreed on the latter first as it had for several years been contemplated and much desired by Kalanimoku, Kaahumanu and others. In furtherance of the project a popular meeting was called, at which the king, high chiefs, leading men and a large number of people assembled, and was presided over by Governor Kekuanaoa. Plans for a building 144 by 78 feet, with basement, auditorium and gallery, vestibule and tower were submitted and explained and met with approval. The king, premier, and governor entered into the movement with spirit, which led to a good degree of enthusiasm among all classes present.

A subscription list was at once opened to which the king in the presence of the chiefs and people subscribed \$3000. Kinau followed next with \$400. Other chiefs signed for fifty,

forty, and twenty dollars each. Then many subscribed for ten and smaller amounts down to one dollar, resulting in a sum total of nearly \$6000 as a starter, and work was begun for the erection of the building in the early part of 1836.

Besides the money subscriptions, the ruling chiefs gave considerable of the coral, lime and timber required for the structure, and through lack of trucks, teams or other facilities for its conveyance, much of the heavy material was borne by the people on their shoulders, or dragged long distances on the bare ground.

Thus was the Kawaiahao stone church built, at a cost of some \$20,000, through the perseverane of the people for six years. Its dedication took place July 21, 1842, on which occasion the king gave the church a title deed to the property, comprising an area of over seven acres⁶.

Meanwhile another body of high chiefs became leading instruments in the cause of religion and education on the island of Maui, and in defense of law and order were called to pass through perilous times.

The station at Lahaina was first occupied May 31, 1823, at the request of the queen-mother Keopuolani, now the wife of Hoapili, on moving there from Honolulu, to which field Revs. C. S. Stewart and Wm. Richards were assigned. Kalaimoku accompanied the party to locate them, but expressed regret that there were no suitable dwellings for the mission, and suggested a temporary residence with a Mr. Butler till houses could be provided by Keopuolani, to which Mr. Butler kindly agreed. The next day, Sunday, services were held at the queen's request in a grove of Kou trees, attended by the princess, Kekauonohi a young wife of Liholiho, several chiefs, and a number of others.

School work began the following day in the houses of the various chiefs, attended by them and a few favorites. Gradually the restriction on teaching the common people was wearing away. Keopuolani was assiduous in her studies to read

^{6.} Bingham's Sandwich Is., pp. 571-2.

in her own tongue, fearing from her advanced age, as she expressed it: "I may not have learned enough of the good word, and of the right way to go to heaven"." Her influence like that of Kaahumanu, was great, and her example most important, being the highest chiefess by blood in the nation. She evinced much solicitude over her son Liholiho's conduct, and in several visits here with his chiefs and other attendants, plead with him to reform.

At the time of opening Lahaina's first chapel which, with school and mission dwellings, were erected by her order, a large party of chiefs arrived from Honolulu, affording a refreshing season, among whom were Kaahumanu, Kaumualii, Kalanimoku and suit, Kamamalu, Kapiolani, Naihe, Namahana and Laanui, with Auna the Tahitian chief and his wife. Shortly after this event Keopuolani was taken seriously ill. Her condition becoming alarming, other chiefs and the king hastened to her. Requesting baptism, on evidence of her faith and hope, this rite was administered, the highest in the land becoming the first convert. She had expressed concern in those about her during her illness and counseled them to seek salvation, particularly her children, the king, the prince and princess.

By her directions, at her death the usual wild heathen orgies attending such an event was forbidden, except wailing, and this was so universal and heart-rending as to drown the sound of the minute guns. Her burial was the first interment of a chief with Christian rites.

Hoapili took as his second wife Kalakua, who had greeted the missionaries on their arrival and favored their application for permission to land, one of the widows of Kamehameha, who at remarriage insisted on the change of name to Hoapili-wahine, and together they did much for the cause of education and moral progress among the people. Governor Keona of Lahaina, also in sympathy with the good work, had as his chaplain blind Bartemeus, once Court buffoon, but since his

^{7.} Stewart's Sandwich Is., p. 177.

conversion, of remarkable piety, eloquence, and fervency in prayer.

Hoapili-wahine took a prominent part in religious work, holding prayer meetings at which princess Nahienaena was a constant attendant, and who in turn conducted gatherings so large that, like Kalanimoku, she desired that only those who were sincere and able to read hymns should attend. One Kaamoku is named as being busy, like Mr. Richards, daily and far into the night, dealing with anxious enquirers8. And in the application of laws of morality, which caused the shameful conduct of certain vessels' crews, to the credit of the Hawaiians be it said, they rallied at the call of their chiefs and protected the lives and property of Mr. Richards and family from armed assault, as did those of Honolulu in the attack of Lt. Percival's men on Kalanimoku and Mr. Bingham. Hoapili, as on other critical occasions, proved his sterling qualities in behalf of law and order; he was a valued aid in school work, like Kaahumanu, sending out teachers to stations in Among these was Moo, his pipe-lighter, a various sections. bright scholar that he sent to Puna, Hawaii, who proved so successful as to soon furnish teachers to other villages of the district. All schools up to this period were for adults, and while attendance was not compulsory, the people were told it was "the thought of the chief," and "the right course9."

In support of the work on Hawaii which the occasional tours of Kaahumanu already mentioned, stimulated, governor Kuakini was a general and valiant aid. He built churches at Kailua and elsewhere, established the Waimea station for the recuperation of the over-worn, promoted education and industry, encouraged cotton growing and erected a factory for Miss Brown's class of spinners and weavers, as also a framed two-story house for his residence. Such was his friendly attitude toward the mission for several years before his conversion, which took place in 1829. His wife, Keoua, a chiefess of first rank, was admitted to the church much earlier than he. He

8. Hawaiian Annual, 1920, p. 64.

^{9.} Dibble's History of the Sandwich Is., Honolulu, 1909, p. 217.

was called to the governorship of Oahu for a time to aid Kaahumanu in enforcing the law against flagrant evils and maintaining order, Naihe, the national orator and husband of ex-Queen Kapiolani, being appointed to the charge of Hawaii meanwhile. At the troublous state of affairs when Kauikeaouli asserts his majority, it is Hoapili and Kuakini that lend their restraining influence over the youthful king.

Of quiet example and personal influence in advancing the cause of religion among their people, Kapiolani (another of the widows of Kamehameha), and Naihe, the orator and hereditary speaker in the council of the chiefs, her husband, and Kamakau of Kaawaloa, a chief of expert knowledge, termed a *noiau*, and Naihe's head man, were bright examples, and are generally linked together by different writers.

Naihe and Kapiolani had long desired to have a missionary stationed near them and until this could be accomplished, they journeyed to Kailua for Sunday services, or they sent a boat or canoe on each week-end for a preacher for the Sabbath and returned him on Monday. They built a church for this service which Mr. Thurston, on one of his visits, dedicated, and two months later they were happy to welcome Rev. and Mrs. Ely to a new home they erected near their own for This was in 1824. Kapiolani diligently sought to profit by her new opportunity for religious teaching; denounced iniquity and encouraged schools, in which Kamakau, advanced in years, was her ready aid. With Naihe she spent some months in Kau collecting sandal wood for the cause of education. Her zeal in seeking to promote Christianity and overcome the heathen superstitions of her people led her to determine upon a visit to the volcano of Kilauea to denounce the goddess Pele and set at naught her kapus. She was strongly opposed in her design, even her husband Naihe fearing the outcome. But unafraid, she set forth afoot, with about eighty attendants, on the long journey, resting on the Sabbath by the way. A priestess of Pele, claiming authority, warned her on nearing the volcano, but silencing the impostor she went forward, and was met at the brink by Rev. Mr. Goodrich, who had gone up from Hilo to greet and encourage her.

Her first request was for a season of prayer and praise, and again the next morning, following which, after breakfast, she and some fifty attendants, with Mr. Goodrich, began the descent into the crater. Reaching the rim of black ledge, in full view of the fiery panorama, the party sat down, when she addressed them thus: "Jehovah is my God. He kindled these fires. I fear not Pele." She then ate some of the ohelo berries, considered sacred to the goddess Pele and kapu to women, and closed the heroic incident with praise and prayer, led by Alapai of her household¹⁰. This was on December 22, 1824.

From here the party journeyed to Hilo, where ten days were spent in strengthening the hearts of the missionaries by helping in the work in going about doing good. At the death of Naihe it was said of him: "He stood forth beside Kapiolani as a champion, and became a firm and steady supporter of good morals and the Christian religion11. Kapiolani to her end was full of good deeds to one and another of the laborers in the field wherever she might meet them.

The bright lights of Kauai scintillate from the advent of the first missionaries, in the kind reception accorded Messrs. Whitney and Ruggles by King Kaumaulii in gratitude for the return of his son George, and appreciation of favors shown him. He desired that these teachers be located near him and offered to build at his own expense the needed houses for the whole mission, also schools and churches¹². It is recorded of him that he readily joined in the renunciation of idolatry; he was attentive to the claims of the Gospel on becoming acquainted with them; was dignified, courteous in manners, honorable in his dealings, respected by foreigners, highly esteemed by the missionaries, and beloved by his people."13

The change of Kauai administration through the removal of its king, led to the appointment of Kahalaia, of Maui, as

^{10.} Bingham's Sandwich Is., pp. 255-6. 11. Ibid, p. 1127. 12. Hawaiian Annual, 1920, p. 56. 13. Bingham's Sandwich Is., p. 224.

governor, a nephew of Kalanimoku, a man of excellent qualities, and, outwardly at least, made a show of favoring religion, and built a church at Waimea. Consequent upon the rebellion of George Kaumualii, in which Kahalaia was killed, Kaikioewa, an aged chief of high rank, a warrior with Kalanimoku under Kamehameha, headed a body of men from Maui, and with Hoapili and Kahekili, hastened to the scene of conflict. At the close of the war Kaikioewa was made governor of Kauai, who with his wife, Keaweamahi, restored order, rendered important service to the cause of instruction and religion, and took pleasure in erecting, as he said, "the best built chapel in the islands," a building ninety by thirty feet. With his wife tours were made from time to time to instruct and encourage the people. Their support of schools and teachers was commendable, Keaweamahi herself conducting a school of forty children.

About the time of Kauai's revival (1832) Kaiu, and Deborah Kapule his wife (the former queen), Paulo Kanoa (subsequently governor), and Oleloa, have mention for their piety and religious influence. It is a matter of regret that the commendable course of Deborah, which began with Kaumaulii and continued up to this period should have weakened following the death of her husband, Kaiu.

Considering the inherent traits of the race and the besetments of the new civilization, the marvel is that so large a number of the leading chiefs of that developing period stood firm, and contributed so nobly toward the Christianization of their people; that from the feudal state of absolute despotism, Kauikeaouli was guided in his better moments to promulgate a Declaration of Rights,—the Magna Charter of Hawaiian freedom;—a constitutional government and the sharing of his lands with the chiefs and people—the great mahele (division). And even reckless Boki and volatile Liliha, his wife, in the days when their better natures prevailed, showed their appreciation of the good work of the Mission by the gift of Punahou's broad acres as their contribution to the cause of Christian civilization in Hawaii.

PLANTATION INDUSTRIAL SERVICE.

AWAII is to be congratulated upon the humane spirit that enters so largely into the relationship between labor and capital in the leading industry within her borders, so well exemplified in the progress of its general adoption by the plantations. What was done on several sugar estates, years ago, toward bettering the conditions of their laborers, became a recognized desideratum which shaped itself, about 1905, in a movement to do away with undesirable and insanitary houses, and build homes for the married and unmarried in their stead.

What developed into social welfare work some five years ago on the larger plantations, was the result of scientific co-operative work under direction of the Hawaiian Sugar Planters' Association, which became a branch of the organization in 1919 under the title of Industrial Service Bureau, with a director in charge, for the promotion, primarily, of improvements in building and sanitation, as also such activities in amusements, recreation, and general welfare work as would tend to improve labor and make for a contented people. The first annual report, for 1920, shows the eagerness to benefit by the plans laid down to have far exceeded expectations.

The open-minded and open-handed attitude of the Hawaiian planting interests has been its stronghold, which, on several occasions of adverse criticism and official inquiry, enabled it to court investigation without fear, and merits the favorable decision that ranks it in advance of like industries in other sections of the country and abroad¹. This has been common knowledge for years past; it is nothing new; and any charge to the contrary, of suppressed facts of labor conditions in Hawaii, as recently heard from certain labor union representatives on the mainland, has not even the excuse of ignorance to palliate their slander.

¹ Report of Commissioner of Labor on Hawaii, 1902, pp. 90-92. Also Ibid, 1910; pp. 30-31.

The recent visit of Senor Varona, special commissioner from the Philippines, for a tour of inspection of our plantations gave him so favorable an impression of the conditions and treatment of Filipinos throughout the islands, that he counselled them to improve their opportunity, and not be lured elsewhere for unknown prospects. And this was reiterated upon his return from a like investigation of labor conditions of his countrymen on the Coast.

In this line of welfare work, Kahuku Plantation was the pioneer, about 1905, to provide a day-nursery and caretakers for Japanese tots and infants, to relieve the mothers during their day's work. And near the same time Ewa Plantation inaugurated the free kindergarten for the benefit of its rising generation. On Maui, at two points proximate to large plantations, social settlement work has been maintained many years by private parties. These perhaps are the stepping-stones to the broader welfare, or industrial service in general adoption to-day.

The reference to building improvements and sanitation being paramount, means the transformation from the old-time barracks structures, and labor camps of a later period, to villages of cottage homes, with the view of further improvements. The Burean aids all such construction work with plans upon a definite scheme, which provides for regular streets, alleys, sewage and water systems, playgrounds, community center and all else that goes to make for a healthful settlement.

The writer was witness to this rehabilitation scheme in progress not long since at one locality on Maui, and marveled at the contrast with the same plantation upon a former visit. What had been the mill and boiling-house was now the community hall and movie-picture house for the plantation hands, and the adjacent land that had been required for cut cane, and for stables, was being cleared for a playground and recreation field. The modern sanitary dairy to serve the plantation folks was a surprise, not only in its up-to-date-ness for insurance of

purity of milk, but the high grade of its herd for quality of their product. And these were learned to be prominent features of other sugar estates. In a more out-of-the-way district the management of a small plantation visited had the foresight to conduct a movie-picture house on stated nights each week, as entertainment for his laborers, with the result that a more contented spirit pervaded there than existed in a like concern in the adjoining district enjoying the benefit of shipping port attractions.

In the Industrial Service report for 1920 referred to, the Bureau is shown to be of material aid to plantations in this respect, having completed arrangements for the supply of picture films through a regular service at stated prices, securing control of the circuit, class of films, etc., whereby plantations are enabled to conduct first-class shows on a self-supporting or profit-making basis.

A body of Industrial Service workers and Visiting Nurses are distributed among a number of the plantations, and the extensive program devoted to general welfare work at the Civic Convention, held in Hilo, with the conference of workers of the service who attended, resulted in a better understanding of confronting problems and demonstrated the advisability of a like convention of all plantation workers.

An exhibit of the results attained by the plantations in industrial service work, in preparation for the Maui County Fair, just held, was placed in the upper hall of the Library of Hawaii during Educational Conference week, which elicited much commendation. The series of congratulations thereon by H. S. Jackson, of Washington, D. C., to Mr. D. S. Bowman², director of the Industrial Service Bureau, opened with this statement: "I have seen thousands of such exhibits, and have no hesitancy in saying that this is one of the best I have ever seen." Mention was made also of the "honesty of purpose" by the models and photos exhibited.

Among other aims of the Industrial Service Bureau looking

² See Honolulu Advertiser, Aug. 17, 1921.

to improved conditions for the well-being, comfort, health and happiness of laborers and their families, to insure contentment and improve their morale, sanitation measures and water supply take an important place under plans first submitted to, and approved by, the Board of Health.

All water to the laborers is furnished free by the plantation. Medical attendance is free, and the large plantations maintain hospitals with trained nurses to minister to the sick.

Dairies are being extended and dairy herds improved in various sections in recognition of its importance to the laborers for the value of a milk supply. On this point the Director's report says:

"It is good business to see that the laborers are provided with suitable food supplies, and milk is one of the best, it being as near a perfect food as it is possible to obtain. Children of all ages thrive better on milk than on any other article of diet. . . . For the upbuilding of the plantation and as part of the general scheme working for a good community spirit with healthy, contented people, a dairy is a necessity. There is no more satisfactory way of helping the children of a community than that of providing pure, fresh milk."

In connection with the above, much good is recorded as having been accomplished through home garden and hog raising contests and the regulation of meat and fish supplies.

The day nursery, already referred to, has become an established feature with many of the plantations where the children of working mothers are cared for, but instead of the care of these nurseries being left to a committee of laborers assigned by the camp boss, the better method of operation now places them in the direct charge of the visiting nurse, she to engage all assistance with the approval of the manager. This obviates the likelihood of incapacitated and suffering women from the camps being assigned to the care of infants.

Children's playgrounds are advocated as of great service to the plantation community, to provide for the development of physical vigor and alertness of those who will be the workers of the future, the most successfully operated grounds being under supervision of regular service workers on estates where they are employed.

Recreation grounds for athletics and field games, as also indoor amusements through men's clubs of billiards, music, games, reading room, etc., recognized to be desirable features, their extension is urged where there is a service worker to supervise same. An educational system of night schools for adults in conversational English in general use on the plantation is meeting all requirements. It being essential that laborers understand and speak English, these schools are conducted along lines that give the student a good everyday knowledge of English.

Landscape gardening comes within the scope of social welfare work, for the beautifying of yards, streets, playgrounds, parks, waste spaces, etc., as it does much to create a desire for home improvement and tends to develop a good community spirit. Most pleasing results are recorded, which had been carried out largely by the ladies on the plantations.

The Boy and Girl Scout movement for the benefit of the children has been undertaken and its extension is recommended as the best medium to promote Americanism, and teach loyalty to our country and the plantation.

This account but briefly outlines the salient points of the humanitarian system under which the sugar industry of Hawaii is guided, and the satisfaction that has been experienced since its general adoption demonstrates that "it pays."

HIGH GRADE STOCK. The movement for high grade stock on Hawaii cattle ranches is strengthened again this year in a large importation by Jas. F. Woods, of the Kahua ranch, Kohala, among which were thirty pure bred Hereford bulls of exceptional merit.

In the recent Maui County Fair, very creditable entries were made by the several ranches of that island, and the Parker ranch of Hawaii. The exhibit received commendations from all visitors.

HAWAII'S SERIOUS LABOR PROBLEM.

THE steady diminution of labor for some years past required to prosecute the agricultural industries of the territory, the seriousness of the situation has reached a critical stage that has forced for recognition the need of definite steps being taken for immediate relief. The attention of the last legislature was called by Governor McCarthy to the existing and threatened conditions in a special message, in substance as follows:

"My attention has recently been called to the fact that the agricultural interests of the territory are suffering from an acute labor shortage. I am convinced that, unless some remedy be speedily found whereby this condition may be alleviated, the agricultural and other dependent industries of this territory, and the territory as a whole, will suffer great and irreparable loss. If this condition shall continue it will mean that the areas of sugar cane and pineapples now under cultivation will have to be reduced. It is now true that thousands of acres of productive rice lands in the territory have been abandoned because of the lack of labor to cultivate them. . . . It is also true that a large portion of the 1920 coffee crop of the territory was not harvested because of the great lack of labor, and the same condition will exist during this present year. This resulted and will result in severe loss to the coffee planters, the greater proportion of whom are citizens of moderate means and unable to withstand such a loss even for one year. The continued shortage of labor will result in a similar loss and in the reduction in cultivated areas in other agricultural lines, with a corresponding inability to support ourselves and the military forces of the United States, either in normal times or during periods of emergency.

"... The entire industrial life of this territory is based upon agriculture. No other industry would exist here except for the support contributed, directly or indirectly, by the basis agricultural industries of the territory, and all our citizens and residents are dependent directly or indirectly upon the successful prosecution of those industries. . . . No agricultural labor other than Filipino has been brought into this territory for at least fourteen years. During that period of time there

has been a large increase in the acreage planted in sugar cane, pineapples and other food staples, and as no adequate additional labor was brought into the territory to cultivate the increased area, and as during that period a large number of laborers have returned to their homes in other parts of the world, the result has been that we have had to spread our available labor supply over such a large area that production has had to slow down, and within a short time will be very materially decreased.

"As our agricultural operations are devoted entirely to the production of food supplies, and as the continuance of that production is essential to the support of the inhabitants of this territory, civil and military, both in normal times and particularly in times of emergency, it is vitally necessary that we have an adequate supply of agricultural laborers to carry on those industries. . . .

"The question is one of such great importance to the territory and to the nation that I believe it should be presented to you and to Congress as an administrative measure, and I therefore submit herewith the draft of a concurrent resolution which contains my ideas of what should be done in the premises and of the recommendations to congress in this regard. . . .

"In order that this matter may be properly, forcibly and speedily presented to the Congress of the United States, I recommend the enactment of the bill which is submitted herewith, which provides for the creation and appointment of the Hawaii Emergency Labor Commission, whose duty it will be to proceed to Washington, D. C., for the purpose of assisting our Delegate to Congress in obtaining immediate relief in the premises."

The necessary resolution was duly passed petitioning congress for remedial immigration measures for the introduction into the Territory of Hawaii of a sufficient number of persons, including Orientals, as may be required to overcome the acute labor shortage, in limited numbers, and for limited periods, the same to be returned to their respective countries at the expiration of their terms.

An act was also passed creating the Hawaii Emergency Labor Commission of three members, to proceed to Washington, D. C., to assist Hawaii's Delegate to Congress in the presentation of the matters referred to in Resolution. The governor appointed on this Commission, Messrs. W. F. Dillingham, Albert Horner and Chas. Chillingworth, who entered at once upon their duties.

The Emergency Labor Bill presented and now before Congress is as follows:

Joint Resolution No. 171, H. R.

"Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled. That for a period of five years from the passage of this joint resolution, whenever the president shall find and by proclamation declare that an emergency exists in the Territory of Hawaii by reason of a serious shortage of labor, either general or by any particular class or classes, the secretary of labor shall be, and he is hereby, empowered, under such conditions and regulations as he shall prescribe, to admit to the Territory of Hawaii such aliens otherwise inadmissible as he may deem necessary to meet the existing emergency:

"Provided, That such aliens shall be admitted only for limited periods of time, for the purpose of engaging only in the class or classes of labor as to which this emergency has been found to exist, that such admission of aliens shall not operate to increase the number of persons of any one alien nationality in the Territory of Hawaii so that their total numbers at any one time shall exceed 20 per centum of the total population of the territory as determined by the last census; and that the regulations shall provide for and secure the return of such laborers to their respective countries upon the expiration of the

time limited, without cost to the United States:

"Provided further, That nothing herein contained shall be construed to allow any alien admitted under the terms hereof to remove to any other place under the jurisdiction of the United States."

Notwithstanding the aim to control the required labor to Hawaii, and safeguard the mainland against their migration thither, as set forth, the proposition does not find favor in the eyes of certain organized labor union leaders of the mainland, who have misrepresented conditions of plantation laborers here and seek to prejudice congress and the public against Hawaii's plea for the right to exist, for that is what it amounts to.

Naturally, the injustice and falsity of these opposition charges has called for vigorous concerted action as an educational campaign in refutation, and to secure the support of congressmen. For this work Mr. Edgar Henriques was appointed a special agent of the Commission at this point, under whose direction the personal aid of friends and trade relations on the mainland is sought to influence their senators and representatives in Hawaii's behalf.

An opportune occasion presented itself to voice Hawaii's the vital problems Hawaii is facing were presented concisely of commerce delegation on their tour for Oriental trade relationship, at the luncheon given in their honor by the local chamber at the Commercial club, October 7th, on which occasion the vital problems Hawaii is facing were presented concisely by Mr. E. Faxon Bishop, president of the early established house of C. Brewer & Co.

It is eminently fitting that the *Hawaiian Annual*, which began forty-eight years ago, in its modest, unaided way, to diffuse abroad reliable information pertaining to Hawaii, should aid in this educational campaign, and give place to this address in full, not only for its fairness in treatment of our problems to meet the questions of the hour, but also for its historic value for convenient reference in years to come.

Mr. Bishop's address was as follows:

"SHIPS THAT PASS IN THE NIGHT."

"The chamber of commerce of our town makes it a point to function in the way of maintaining a lookout station for the ships, that pass Hawaii in the night, and this results in the drag net bringing most of them to anchor at Honolulu by daylight, and also in sending them rejoicing on their way across the great seas about sundown at the end of a perfect day or two. By this simple device, we are enabled to hold up for a moment our American friends, en route across the Pacific, and make a feeble effort to impress upon them that out here 2000 miles from the California coast stands a detached segment of the spur

gear of our great American industrial organization, upon which our country depends in so large degree for its very existence.

COMMERCIAL RELATIONS.

"Our commercial relations with the Pacific coast, which your delegation so very substantially represents, particularly the great port of San Francisco, are very considerable, as you are no doubt aware. There was a time, not so many years ago, that 25 per cent of the shipping tonnage in and out of the port of San Francisco hailed from or was destined to Hawaiian ports. I cannot say, to-day, positively what proportion of your incoming and outgoing tonnage is from the islands, but I know that it is a very large part of your shipping traffic.

"As a customer of your city and state, Hawaii also cuts a very considerable figure; in fact, our trade has been both of large volume and long standing—so long perhaps that you have grown unconscious of its volume as a business asset. Trade relations with Hawaii have increased so rapidly, and San Francisco being our natural and nearest market and base of supplies, that we are almost a part of you in a commercial sense. This is emphasized by the fact that we have built up a great manufacturing plant on your bay representing an investment of \$15,000,000.

"In some respects the Pacific coast is not big enough to get away with what is proffered from Hawaii—our commodities, particularly sugar, being spread out over a territory reaching to the Mississippi river; our pineapple production is scattered, of course, through every state in the union.

"Our imports from continental United States last year approximated \$72,000,000, of which California furnished the major part—so you will see that Hawaii is one of your substantial customers, and I believe also that Hawaii has a good reputation and credit standing.

MUTUAL INTERESTS.

"On account of these valued relations we believe it is consistent of us to expect that you will take the view that Hawaii commercially is of such large importance to your city and

state that you should be interested in us, more perhaps than in any other outlying territory. Moreover, people of your city and state have large direct interests in Hawaii. What affects Hawaii adversely affects adversely a large and important trade item of your city, and as we are not in a position to help ourselves as effectively as we would like to do, we must rely on our commercial friends to aid us when they are in a position to do so without conflict of interest.

"Politically, we rank, as you well know, as a territory of the United States of America, and in some material respects we bear the responsibilities and burdens of statehood. About the only thing that makes our status different from the status of statehood is the fact that we are a ward of Congress. By this I do not mean that we are or ever have been financially dependent upon the federal government.

PRAISES FOR DELEGATE.

"While we are a ward of Congress, we are not a unit thereof, with a full-fledged representative delegation in the membership of that body. We are represented by a single voice in Congress—that of our able delegate—but this is a voice only, as he had no vote and is, therefore, not in a position to trade for support. Were it not that our delegate has made many influential friends, who have rendered him great aid in his efforts to get legislation for Hawaii, his task would have been almost an impossible one.

HAWAH'S CONTRIBUTION.

"I might mention in passing that in point of levy of income imposts, customs and internal revenue there are 16 states that chip in less than does Hawaii when Uncle Sam passes the hat with no toleration for pikers. We have no protest to enter so far as being expected to live up to and come over with all that is a part of the patriotic duty of every community under our flag.

"When a territory of 250,000 people contributes a tax im-

post of twenty-one millions of dollars, as we did last year, it would certainly appear that it is at least doing its part.

"We have no complaint on that score, but we are prone to expect that our guardians, Congress, should give us our due, and that there is due us something more than may appear from the point of view of the mainland observer.

"We live on the edge of the tropics. Our conditions are different from those prevailing in any part of continental United States. After six days of eternal salt air you will appreciate our isolation and remote location. We are well on the road, nearly a half-way station, to that far world to which you are journeying in search of fields of opportunity. Therefore, we are different from mainland communities, and we require different and special treatment.

"The difficulty is that Congress is unconscious of these facts, is prone to accord us the same treatment that it accords to the states. This may seem equitable, but it is faulty diagnosis, and if it continues the patient will probably succumb, even though it may be established that the operation was technically according to Hoyle.

AGRICULTURAL CONDITIONS.

"Observe briefly conditions bearing on our agricultural industries as compared with your own. I refer to such crops as sugar and pineapples. Our crops are two years in the ground, while yours are eight or nine months. Some of you are perhaps bankers and you carry the farmer from spring to fall, a matter of six to eight months at the outside. The planter of sugar or pines in Hawaii in 1921 gets his crop off late in 1923, and, moreover, must carry on two crops and part of a third all the time.

"Just now we are still harvesting our 1921 crop, trying to plant and bring forward the 1923 crop, meanwhile also trying to keep back the weeds and keep irrigated the half matured crop of 1922—a large job surely, one requiring extensive financing. This is a condition that you do not face on the mainland. It is also a condition not prevailing in any other

cane country than Hawaii, so far as I know, as all other sugar growing countries are more intensely tropical, enabling them to grow one-year crops of cane.

COSTLY CULTIVATION.

"In Hawaii, also, our volcanic soils require heavy fertilization, to the extent of from \$50 to \$100 per acre, involving an expenditure of \$4,000,000 to \$5,000,000 per annum on the 220,000 acres of sugar cane at the present time under cultivation. We are also required in many districts, in fact in our very best sugar cane areas, to provide artificial irrigation, lifting great quantities of water to a maximum height of 450 feet and from that point distributing it over the areas which it reaches. There are four large plantations on this Island of Oahu that do extensive pumping along these lines. The aggregate pumping capacity of these plantations is 300,000,000 gallons per day.

"I made a statement some years ago to the proprietor of a leading San Francisco daily newspaper to the effect that one of these plantations which we were on at the time the statement was made was pumping more water per day than was required to supply the city of San Francisco. He looked at me as though he would like to say a certain thing, but he restrained himself admirably.

"These facts are placed before you to explain why our business is no sinecure. They also account for the fact that our industry is carried on by large and incorporated companies with sufficient capital to get away with it.

"The sugar and pineapple industries were pioneered by individuals or small farmers, but the strain was too much and they eventually broke under it. It is essential to our industry, therefore, that special consideration be given to our requirements in the way of immigration, as all our labor comes from the outside.

MAN-WITH-HOE PROBLEM.

"The production of a crop of sugar cane requires large amounts of manual labor. 'The man with the hoe' is our problem, although his field of usefulness extends to the cane knife and the loading of cane on cars or in flumes. Our natural base of supply for this labor is the Orient. You will readily understand that European immigration is largely absorbed in continental United States before it even reaches the Pacific coast.

"The average congressman objects to the Oriental, and his point of view is his own district or constituency. From this point of view, he may be entirely justified in his position; but when it comes to acting upon legislation that applies solely to the distant and detached Territory of Hawaii, I believe that it is another matter.

"With a barrier of two thousand miles of salt water between Hawaii and the mainland, we in Hawaii believe that proper safeguards can be provided in the way of restricting travel, so that there would be absolutely no danger of upsetting mainland conditions.

"If the policy is to be that we are not to have what we absolutely need, because the member from Wisconsin must stand in with the local prejudices in order to get re-elected, then we are in a bad way out here.

ENTITLED TO JUST TREATMENT.

"The United States of America has come into outside territory and that territory is entitled to just treatment, which can be accorded without conflicting with the ideals of the mainland.

"At the present moment the industries of Hawaii are grappling with a crisis. In every other sugar cane country of the world, industrial chaos is already dominant.

"We are endeavoring to keep our industrial ship off the rocks of disaster, and whether we do or not depends much on whether the mainland will throw out the life buoy.

LABOR THE VITAL NEED.

"Our need is labor. You have in some sections of the mainland too much of it, and yet your 'back to the farm' problem remains unsolved. "The white man cannot stand up under tropical field labor conditions, and any idea of obtaining the unemployed of the mainland to fill our needs is folly. You know the difficulty of your own farm labor requirements. It is many times worse under our climatic conditions.

"In May of this year, the governor and the legislature of the territory of Hawaii, sensing that industrial disaster was imminent, which in turn would result in disaster and hardship to all of the people of the Territory, took action so far as it was possible to do so, in the passage of a joint resolution, petitioning the Congress of the United States to come to our relief in the matter of immigration.

"Special legislation that would permit of a laboring class, Oriental or otherwise, coming into Hawaii, restricted from proceeding to the mainland, thus safeguarding any fear on the part of the people of continental United States that the entrance of a laboring class into Hawaii, would result in these people ultimately reaching the States, was what the petition and joint resolution sought.

BILL IN CONGRESS.

"A legislative commission was sent on from this Territory to present this memorial to Congress, and a bill calculated to meet our requirements is now pending in the Congress of the United States and is delayed of passage or action by Congress, owing to larger and more important measures, such as tariff and tax laws, that at the present time occupy the entire attention of our National Legislature.

"We acknowledge substantial aid rendered us by certain of the representatives of your State in Congress, but while you are with us we wish to emphasize the urgency of our situation. By and by, after you have traveled in those strange lands beyond, you will return homeward. You will have in your hearts that feeling that inspires every traveler after a tour abroad of exceeding happiness that you are once again homeward bound. On your way across the great waters, with your ultimate destination the Golden Gate of California, you will pass by Hawaii,

and when you come in sight of the Stars and Stripes floating over some government rampart or public building on our beautiful Island of Oahu, you will feel a sense of gladness that American jurisdiction extends two thousand miles out into the Pacific from the coast of California.

REMEMBER HAWAII.

"We ask you to remember that in this island domain there live a substantial contingent of your compatriots, who, with their forbears for nearly a century past, have been endeavoring to build according to the traditions of the American nation, great industries. In this I believe we have succeeded in a considerable degree; and our success in this respect has benefited your State, and in some ways all the people of continental United States. We, therefore, venture to hope that you will go back home with the thought in mind that the final chapter of the story of your travels is laid in Hawaii, and that her people are entitled to your full consideration and aid in what is necessary for their prosperity and happiness."

ALOHA! PRESS CONGRESS, ALOHA!

AWAII has delighted to honor the Press Congress of the World in its recent visit to Honolulu for the consideration, in its sessions, of important problems of wide world import and interest, and has shown her appreciation of their choice of this place of conference in unmistakable terms. The following will briefly outline the social side of the occasion. The account of its labors is another story.

The Matsonia with its distinguished party was an early arrival Monday, October 10, 1921, and was met off port by demonstrations of welcome from airplanes and naval craft, for escort. The reception committee followed the pilot, with their Aloha greetings, and a beyy of young ladies busied themselves in bedecking the delegates with floral leis, so characteristically Hawaiian in custom. Meanwhile Hawaiian singers in

a launch serenaded the party, and outrigger canoes towed the big craft with gay ribbons, swimmers giving exhibitions of diving along the way. Steam whistles, long and loud, also extended arrival greetings, and the Hawaiian band on the wharf played welcoming airs.

Autos in waiting conveyed the delegates to their respective hotels, and in the afternoon a reception to delegates and citizens was held by Governor and Mrs. Farrington in the legislature hall of the Executive Building, from 3:30 to 5:30, which inaugurated a memorable social season.

In the evening a banquet was given at the Moana to the Press Congress and their friends by the Honolulu entertainment committee. Addresses of welcome were given by Governor Farrington, Mayor Wilson, and others of the city, with responses by several of the delegates. The governor was toast master for the occasion, which proved "a feast of reason and flow of soul." His address was, in substance, as follows:

Hawaii has a welcome all its own. Its Aloha expressed in word and act of deep meaning, which grips the heart strings and impresses the memory that gives us a distinctive place as a center that cultivates and radiates friendship. The delegates of the Press Congress of the World are welcomed most heartily into this family atmosphere. We take your mission and sessions seriously, and hope it may exercise a beneficial influence on that great conference of nations to be held shortly in Washington. If the world's press delegates could clarify their precepts and practices, a sigh of relief and satisfaction would issue from many upon whom rests the responsibility of not only finding the way out of the world's dilemma, but convincing the world that it is the right and best available route.

A concise historic account was given of Hawaii's progress in moral, educational, political, industrial, financial and commercial development, among the early aids to which was the first printing press in the Pacific, from which the first sheet was pulled July 7, 1822. In several features of local enterprise and endeavor Hawaii has set world standards, and ranks

high in her commercial relations with the mainland, and in financial returns to the federal government for our mixed population of 275,000 souls.

This isolated outpost in the Pacific, 2,000 miles from the bustle and excitement of mainland activities, offers an ideal opportunity for the study of important problems free from disturbing influences. Hawaii urges that you make note of what has gone on and is now going on in this meeting place of nations; estimate the success with which the people of different traditions have met in friendly affiliation. Approach the subject from a friendly angle and strike an average on how well ancient prejudices have been uprooted without sacrifice of virility, respectability, individuality or nationality.

Because of these conditions the people of Hawaii are called upon to live under, and are daily dealing with problems others are puzzling over, it seems that no other place on earth could be at this time more appropriate for assembling a press congress of the world.

The peculiarly human institution of journalism has its idealists who point the way. It has business managers who, from financial standpoints, tell these idealists how far they can go without wreckage, and making the last condition worse than the first. So, in turning to some of the topics you may discuss, the editor, the reporter, the writer and the manager has a rather clear understanding of the task before the various other international delegates meeting in Washington next month.

Forces of publicity that you represent have a definite responsibility. You know full well that the results of every world congress depend on the manner in which the facts of the deliberations are given to the reading public, and you know how deadly is the poison of misrepresentation.

The peoples of the world are for peace. No greater truth could be uttered than that this is a war-weary world. Its peace will be beyond fear of disturbance when the press of the world features the news of peace, preaches the gospel of peace, and devotes attention to getting the facts and telling the truth about

them. The world has passed through an orgie of recklessness; it has sounded in wasted life-blood the depths of self-sacrifice. Certainly we have reached the era for testing the capacities of the really great people for self-control. The press of the world can lead the way.

Honolulu, interpreted, means Fair Haven. The people of Hawaii sincerely hope that you will find here a fair haven in the fullest and best sense of the term. We promise every endeavor to make your stay both pleasant and profitable. Friendship and kindliness we offer without qualification, believing that workers of the press will not only make the best possible use but pass it along among all peoples, thus giving a world mission to Hawaii's Aloha.

The governor was followed in turn with welcome addresses from John H. Wilson, Honolulu's mayor, Mrs. J. T. Warren, president of Honolulu's press club, and Geo. P. Denison, president of the Chamber of Commerce.

Members of the delegation, called upon, responding with felicitous remarks, were: Col. Edward F. Lawson, of the London Daily Telegraph, who paid a tribute, in passing, to Dean Williams for bringing the journalists of the world together in conference; Ludwig Saxe, of Norway; Frank P. Glass, of Alabama; Hon. Mark Cohen, chairman of the New Zealand delegation; Guy T. Inness, of the Melbourne Herald; T. Petrie, of the Hongkong Morning Post; Y. Soga for the delegate from Japan; Gregorio Nieva, of Manila; H. K. Tong, of Peking. Dean Walter Williams, president of the congress, was the closing speaker, with expressions of gratitude of the press men to the people of Honolulu for making it possible for the congress to be held in so appropriate a place, and paying a high tribute to the beauty and hospitality of Hawaii.

Following the organization session, Tuesday forenoon, the rest of the day was devoted to sight seeing. In the evening a military band concert was given at the Moana hotel, after which preparation for the trip to Hilo was in order.

The Matsonia with the delegation left at 3:30 A. M. of

Wednesday, so as to afford a daytime view of the windward coast scenery of Molokai, Maui, and Hawaii, en route, reaching the crescent city at dusk, where a welcoming concert by the band greeted them at the wharf, and Hawaii's reception committee met them on board with greetings, singing, and floral tokens of Aloha. Autos in waiting conveyed the party to the Hilo yacht club for an outdoor entertainment which consisted in part of an address of welcome by Dr. Rice, choir singing, tableaux, refined hula dancing, mele recitation and yodeling that was enthusiastically rendered and highly appreciated. Following this the dance floor of the club was utilized for its designed purpose till midnight, when autos bore the party back to the steamer for rest.

Thursday morning a special train took the delegates on a scenic railway trip along the north Hilo coast some twenty miles, which afforded thrills of delight for its picturesqueness. Returning for noon lunch at the hotel, tendered by the Hilo board of trade, the party then took autos for the volcano. It was a gay crowd of about 250 delegates, friends, and other visitors of the occasion, that tested the capacity of the renovated Volcano house, and though Pele had modified from her late spectacular exhibition, yet the lakes of molten lava, fire fountains and steam fissures gave surprise, awe and amazement at the wonderful scene, all of which was further impressed by the intelligent lecture which followed, by Dr. T. A. Jaggar, Jr., from his scientific records and experiences for many years past at this volcano observatory.

An interesting visit by auto was made to the tree moulds; to the twin craters and lava tube, amid luxuriant tree ferns and other tropic growth; thence to the region of volcanic sand that erupted and overwhelmed Keoua's army in 1790, some five miles from the volcano; thence to Kilauea for a day view of Pele's doings, and back to the hotel for lunch.

Returning to Hilo, sight seeing visits to the various attractive points were the afternoon indulgences. Dinner at the yacht club, by Hilo's entertainment committee, was the six

o'clock engagement, with addresses by kamaainas and responses by malihinis. The party thence attended a Japanese entertainment given in their honor, presided over by Frank J. Cody, chairman, which consisted of songs, geisha and other dances, exercises and plays.

At midnight the Matsonia left with the delegation for Kahului, to take in Maui's county fair and her scenic attractions. Arriving off port about 9 A. M. the steamer was escorted into the harbor by an Eagle boat, and airplanes doing daring stunts on the way. A large committee of welcome met the delegates on board the vessel, accompanied by Governor Farrington. Joseph H. Gray, editor of the Maui News, was chairman of the reception feature, and gave the delegates hearty greeting. H. B. Penhallow, president of Maui's chamber of commerce, did honors for that body, and Mrs. W. A. Baldwin, as chairman of the ladies' reception committee.

Autos were in waiting at the wharf for the visitors as they landed and took them to the fair grounds. Here the party divided; one division making the Haleakala trip for an overnight stay on its brink, to drink in its glories under moonlight, and watch for its unmatched sunrise splendor. And Nature outran their expectations, many expressing it as being "the greatest show on earth." Those who remained for the fair spent the day also in touring to points of interest, as guests of the people of Maui, and were eloquent in their praise of all met with. Dean Williams commended the arrangement of the fair, saying he had never seen one that equalled it, and the people of Maui were to be congratulated on their enterprise.

In the evening a concert by the Coast Artillery band was given at the fair grounds, with "A Night in Hawaii" entertainment, under Hawaiian direction, which drew forth the governor's thanks to those taking part therein, and remarked:

"I want those delegates who have come here from abroad to know that these beautiful Hawaiian songs will never grow old. They are getting ever stronger on your heart-strings. Nor can you jazz up Hawaiian music, for if you do you rob it of its character, of that something which carries with it all of the romantic atmosphere of Hawaii."

Sunday was not a rest-day. Autos awaited the delegates at an early hour for a touring trip and inspection of points of interest through Paia, Makawao, Puunene, Wailuku, thence to Lahaina where they had their first experience with a genuine Hawaiian luau, with its underground cooked food. Hawaiian music accompanied the feast, which was followed by a number of brief addresses, the responses of the visitors all thanking the people of Maui for their kindness and hospitality shown them.

Returning to Kahului, the visitors were taken to the Puunene swimming tank, for an exhibition participated in by Duke Kahanamoku, Warren and Pua Kealoha, Marie Wehslau, Helen Moses and a number of other of our fastest swimmers, thence to the steamer for Honolulu.

Monday, 17th, sessions of congress held at 10 A. M. and 2 P. M. In the evening was a military band concert at the Moana hotel, a regular feature during their stay. Tuesday, a "Jamboree lunch" was given the delegates at the Outrigger canoe pavilion, tendered by the Honolulu Ad club, accompanied with special music and "some stunts." The ladies of the delegation got even the next day, by a lunch given them by Mrs. Governor Farrington at the Country Club from 12:30 to 2 P. M., autos conveying the guests from their various hotels and back.

In the evening, at Memorial Park, Waikiki, an outdoor entertainment of "The Spirit of Hawaii, Past and Present," was presented by Hawaiian patriotic societies, in which Hawaiian life and customs was depicted, with music and dances, as also present day songs by our best native singers, prepared specially for the press delegates.

Saturday was a strenuous day. A reception by the military authorities and inspection at Schoffeld Barracks began at 9 A. M., and the varied exercises and parade by the various divisions carried till noon, and proved an interesting educa-

tional exhibition. From this, autos conveyed the party to Haleiwa for lunch, tendered by the Honolulu chamber of commerce. The opportunity was improved of, in passing through the miles of pineapple fields en route, to learn the method of planting and cultivation of this fruit. Leaving the hotel after lunch, the return to town was made by the windward route, affording views of points of interest and scenic attractions along the Koolau range, resting for a spell at the Pali gap (made memorable by Kamehameha on his conquering this island) for the unmatched view to be had at this point.

Special services in honor of the congress were held at Central Union church on Sunday, at 11 A. M., by Rev. Albert W. Palmer, its pastor, and in the afternoon a special exhibition of the treasures of the Bishop Museum was given, with description of bird snaring and feather gathering for the capes and cloaks of the aliis of old.

Monday, the 24th, was pineapple day, tendered by the Hawaiian Packers' Association. Beginning with an inspection of the can factory, with its capacity of 150 million cans annually, the delegates were next led to the canneries of the Hawaiian Pineapple Co. and the California Packing Corporation, which were put in special operation for the occasion, this being out of the regular season. Lunch was served the party in the Hawaiian Company's cafeteria for its employees. At its conclusion addresses were given on the status of the industry in the territory by the manager of the California Corporation, and on the scientific work in progress connected therewith, by Dr. H. L. Lyon.

This was followed next day by a trip by Oahu Railroad, tendered by the Hawaiian Sugar Planters' Association, for an inspection of the Oahu Plantation, its mill, canefields, labor camps, hospital, pumping plant and other equipment. The party lunched at the manager's residence, at which Mr. E. F. Bishop, president of the Planter's Association, described the status of the industry in Hawaii and the problems confronting us.

Surf riding at Waikiki was the attraction on the 26th, tendered by the Outrigger Club and Women's Auxiliary, with afternoon tea at the club's pavilion.

Thursday, 27th, was public school day, with exercises by several thousand children at the Royal school grounds, Emma street, which consisted of plays, drills, songs, dances, etc., illustrative of race mixtures being Americanized. Afternoon tea was tendered the ladies of the delegation by the Daughters of the American Revolution at the residence of Mrs. W. D. Westervelt.

Friday forenoon was devoted to an inspection of the prison at Kalihi, which was admitted to be quite up-to-date in its arrangement, and conducted under most humane methods. An inspection of the Leprosarium was next in order, with addresses by Dr. F. E. Trotter, president of the board of health, and by Dr. H. E. Hasseltine, physician in charge.

In the evening the typical Chinese play, "Yellow Jacket," by members of the Chinese Students' Alliance, was given at Mission Memorial hall, tendered by the Chinese community. The uniqueness of this play, in plot and staging, demanded its repetition Monday evening.

Saturday was Naval day. Naval craft conveyed the delegates to Pearl Harbor as guests of Rear Admiral Simpson, officers and men of the 14th naval district. The party were treated to all sorts of naval maneuvers and sea-plane exhibitions. The dry-dock was visited and its operations and points of interest explained, after which a reception was held at the marine barracks, followed by luncheon.

What has been termed "the crowning event of the series of entertainments for the press congress delegates," was the lantern parade on the evening of the 29th, along King street, in which there were 3000 participants. Led by a body of mounted police and the band, came the Ad Club, Boy Scouts, Japanese (with floats showing two cherry trees in full bloom), St. Louis college, Chinese, Koreans, all of whom bere lanterns of various shapes and size, which, with a number

of floats—in prize competition—gave a most spectacular turnout that took nearly an hour to pass the judges' stand.

On Monday, 31st, a military tournament by R. O. T. C. was held at Alexander Field, Punahou, students of Oahu college, University of Hawaii, Kamehameha schools, and Honolulu Military Academy, some 500 in all, taking part. At its close autos took the delegates a trip all around the residential and view points of the city before returning them to their hotels. In the evening was a ball at the Country Club, Nuuanu valley, tendered by its members to the delegates, to and from which, autos were again at the service of the guests.

Tuesday, P. M., witnessed the departure of several members of the party, including Dean Williams, for Japan, all lei-covered, and Wednesday, A. M., the rest of the press congress—excepting a few remaining for rest and further knowledge—returned to the Coast per steamer *Maui*, a tired but happy band, wreathed with flowers, expressing thanks to the people of Hawaii for the hospitality that had been extended to them, and vowing to come again.

Thus endeth Hawaii's first Press Congress lesson.

PRESS CONGRESS CONVENTION.

Portunate circumstances brought the Press Congress of the World to Honolulu for its first formal session since organization in San Francisco in 1915, during the Panama-Pacific International Exposition, which was effected by representatives from twenty-eight countries. At that time, on invitation of the government of New South Wales, it was expected to hold the first formal session of the Congress in Sydney, but the world war and other conditions intervening, it was deemed best to accept the invitation extended by Hawaii to gather in conference at this Mid-Pacific point. The Congress today represents fifty countries, with a membership of over 2,300 representative journalists.

Dean Walter Williams, of Columbia, Mo., president of the Press Congress since its organization, summoned the body to convene in Honolulu, and arrived October 10th with the large majority of delegates by way of San Francisco. Moana hotel became the official headquarters, where registration was effected and announcements were made.

The sessions of Congress (held in the banquet hall of the hotel) met for organization on the 11th, Dean Williams presiding, with John R. Morris as executive secretary, and Guy Inness as honorary secretary. The opening address was from President Warren G. Harding, through Governor W. R. Farrington, delegated for its delivery, and is as follows:

PRESIDENT HARDING'S ADDRESS.

The White House, Washington, D. C., September 10, 1921. My Dear Governor Farrington:

At one time I dared to hope that it might be possible for me to come to Honolulu at the opening of the Press Congress of the World, and say in person some of the things that I think would be appropriate to so notable an occasion. I find it impossible for me to be away from Washington at that time, and therefore am asking you to extend in my behalf the greetings of our government to the delegates, and to assure them of the great importance we attach to this world gathering of representatives of the press.

MERE PROPAGANDA DANGEROUS.

I hope the fact that I chance to have been most of my life a newspaper man, will not have distorted my judgment so far as to cause me to overrate the importance of journalism in the present-day world. Not only have the World War, and the events transpiring since the armistice, impressed us all anew with the use and value of the public press, but they have demonstrated the possible danger which resides in a press too freely employed for mere propaganda. In the overwhelming emergency of the war, propaganda became a well-nigh universal habit, I might almost say a code among journalists. It was, of course, intended to be the propaganda of patriotism, of devout nationalism, of well-intended aspiration for the salvation of the best in human society; but it was not always entirely fair, judicial or discreet. On the whole, it served a splendid pur-

pose in the circumstances of war-time; but we newspaper men could indulge ourselves in no more grievous error than to assume that propaganda is the first or even a leading aim of a properly conducted press.

PRESS SOCIAL INSTITUTION.

Your own letter, which has just come to hand, concerning the educational conference of this summer at Honolulu, suggests to my mind the idea that might well dominate an ideally conducted press. I cannot but feel that the primary purpose of the press, as a social institution, is the opening of men's minds, rather than the closing of them. Propaganda aims primarily at shutting up the mind against other conclusions than those which the propagandist designs to implant. Education, on the contrary, aims to open the mind to prepare it, to make it receptive, and to urge it to formulate its own conclusions. Propaganda would at least mean intellectual paralysis; education is, when properly employed, intellectual stimulus. It is better that men should think than that they should accept conclusions formulated by other men for them.

We have need in these times that men should think deeply, that they should realize the necessity of settling their own problems.

DEMOCRACY ON TRIAL.

The world has well-nigh become a great aggregation of democracies. No democracy will rise very far above the level of its average thinking capacity, and no aggregation of democracies will rise very far above the average intellectual abilities of its members. In short, democracy has come to its great trial, and the verdict will depend largely on its capacity to make men think. It is not enough to say that other systems, by their very nature, discourage men from thinking, because they aim to provide organizations at the top to do their thinking for them. That may be true, but it is no answer to my proposition that if democracy is to succeed it must deserve success by proving that it can inspire the race of common men to serious, continuous, effective consideration of the problems of common men.

In this work of education no single force or influence of which we now know can be expected to exert so great a potency as the press. Perhaps the press never confronted so great an opportunity to demonstrate its adequacy to this task, as now.

MEETING IN HOPEFUL TIMES.

You peoples of the Pacific have invited the Press of the World to be your guests, to consider the problems of our time and our race. You are meeting in a day when the world is looking forward to the gathering of the nations to consider limitations of armament and the maintenance of world peace. If your deliberations shall inspire a larger, a better, a more humane view of the elements which enter into the problem of peace and at least a measurable disarmament; if you can encourage the ideal of a world permanently at peace, then you will have given a vast impetus to the efforts of statesmen who are presently to consider these problems in Washington.

We have heard much in recent years about the problem of the Pacific, whatever that may be. I take it to be merely a phase of the universal problem of the race, of men and nations

wherever they are.

NO EXCUSE FOR WAR.

It is hard to imagine justifications in this day and age, especially in view of the world's late unhappy experiences, for armed conflict among civilized peoples anywhere, and especially among peoples so widely separated as those on opposite borders of the Pacific. They represent different races, social organizations, political systems and modes of thought. Between them and their widely varying systems, there may well be an amicable competition to determine which community possesses the better and more effective ideas for human advancement. But that there should be conflict: that warfare and controversy should interfere with this worth-while demonstration of the value of different modes of progress, is almost unthinkable. The Pacific ought to be the seat of a generous, free, open-minded competition between the best ideals of eastern and western life; between the aspirations and endeavors of the oldest and newest forms of human society.

LOOKING TO PEACE ON EARTH.

You are meeting at the cross-roads of the Pacific, amid all the glamour and romance and glory which have always surrounded the very name of the South Sea. You have an opportunity to do a work for humanity, and I believe you have met at a peculiarly auspicious time. I could express no greater hope, no more earnest wish for your congress than that it might prove the precursor of an understanding which in our day, in our very tomorrow, I may say, would insure the peace of the world, the proximate end of the frightful waste of competing armaments, and the establishment of peace on earth, good will toward men.

Very sincerely yours,

WARREN G. HARDING.

The address of President Williams, which followed, voiced high ideals for journalists' aims to secure world betterment and lasting peace.

Briefly outlining the history of the Press Congress of the World, and a tribute to Honolulu as a most suitable and appropriate place for its conference, the aims, subjects for consideration, method of treatment, etc., were clearly set forth, of which but brief extracts are here given:

OBJECT OF CONGRESS.

The object of the Congress is set out in its constitution: "To advance by conference, discussion and united effort the cause of journalism in every honorable way." It seeks by interchange of views, by discussions, by correspondence, by acquaintance-ship, to enlarge the horizon of its members and to bring to all of them added appreciation of the dignity and the possibility of their profession.

No definite limits are set upon the meetings of the Congress, as to time or place. . . . Whatever may be the decision as to the time and place of the following sessions, it is suggested that provision be made for regional conferences to be held annually or biennially. With propriety, the first of these regional conferences may well be organized during the session at Honolulu, the Pan-Pacific conference, a department of the larger world-organization, a department having large opportunity for usefulness. Later, regional conferences may well be formed in other parts of the world.

SUBJECTS TO BE DISCUSSED.

That an interchange of views on problems of wide interest may be undertaken with some definiteness during the present sessions, the executive committee proposes the discussion of these questions:

(a) What preparation is desirable for journalism?

(b) How far is freedom of the press necessary or desirable and how may this freedom best be attained and safeguarded?

(c) How best may avenues for news communication throughout the world be established, maintained and kept open?

(d) What, if any, are the obligations of journalism in

reference to international relations?

(e) The question of interchange of journalists.

It is not intended that discussions shall be limited to these questions, including as these discussions may others of importance, but that they be given primary consideration. . . . Because journalism in its product is ephemeral, we are too apt to regard the questions which affect it as of only momentary interest or concern. Quite the opposite is of course true. The principles of journalism endure however the application changes with the generations or however it may vary in different lands. The long look helps to see clear one's way to the fulfillment of the day's duties. . . .

JOURNALISM IS PUBLIC SERVICE.

Journalism, in its final analysis, is a profession of public service, not a business or a trade. It is primarily a profession of public service, and, in this place and presence, it may be suggested, a profession of international service. If journalism be a profession of public service, then those engaged upon it have a common object, the service of the public; and in international, as well as national relations there should be the studious desire to interpret the words of others in the best sense, to avoid whatever widens breaches between nations and peoples and to make the most of whatever tends to narrow them. To these principles the journalist who wishes best to serve internationally will sedulously conform. . . .

OPEN HOUSE FOR TRUTH.

Journalism should keep open house for every wholesome truth while the doors of its sheltering space are closed to the falsehoods, under whatever specious plea they come, which are destructive of domestic or world welfare and peace.

The great object of a conscientious journalist, said one, is to make righteousness readable. That is only part of the truth. The great object is to make righteousness more than readable—

to make it obtainable and sought.

Any consideration of the world's journalism with a view to its betterment must take into consideration all its tendencies, good and evil. Some evil tendencies arise from a low estimate of the public's wishes. . . .

Other evil tendencies arise from editorialized news, from lack of personal responsibility, from the cheapness and lowered standard of vulgarian journals. While these suggest tendencies for evil in the world's press today, other, and, I believe dominating tendencies are toward better things. Never before has the professional spirit of journalism been so manifest, never before has the press recognized itself so generally as a profession of public service. Individual responsibility for a social institution attaches more and more to those who serve in any capacity in journalism.

We come to a Press Congress that we may learn and serve, for every man is a debtor to his profession, as Francis Bacon wrote, "from the which as he seeks to obtain countenance and profit, so ought he of duty by way of amends to be a help and ornament thereto."...

"KEEPER OF CONSCIENCE."

The journalist who undertakes this high mission will be the daysman who stands between the extremes of society. He will be the keeper of the conscience of King Demos and woe be unto him if he neglect his primary duty to the weak, the friendless, and those who have no helper.

That we may better realize our responsibilities to the world in which we live and to our profession, that we may be the better prepared to meet these responsibilities through our profession to the world in which we live is the high object of this Congress.

We are engaged in a common profession with common faith in its high purpose and in the possibilities of its service toward the welfare of mankind. If we do to the utmost our duty in its behalf, wars would become impossible, the world would be tranquilized and made prosperous unto more abundant living everywhere. Men of good will would take the place of men of hate. It is true and increasingly true, the whole quotation makes the meaning clear, that "beneath the rule of men entirely great, the pen is mightier than the sword."

NEW WORLD JOURNALISM.

The new world journalism is the outcome of a new world spirit. It is the outward and visible sign of an effort at self-expression; a struggle among the peoples for different relations to the external; a conviction that they should have more to say concerning their own fortunes. Its manifestations are

various. Its attitude is critical everywhere and sometimes openly contemptuous. In some lands it seeks reform, in some it inspires revolt; is freakish in some places for a time and revolutionary elsewhere. Of this spirit, at the same time its creature and its creator, prophet and its slave, is the new world journalism.

FOR THE PUBLIC GOOD.

One significant and hopeful fact that any consideration, however slight, of the world's journalism today reveals is that journalists in every land are more and more possessed of the conviction that their profession is primarily for the public good, that they are to be, whatever the personal risk, keepers of light-houses to bring the world's peoples through troubled seas to safe, peaceful and prosperous harbor. This conviction is widespread and growing among journalists. That it exists, and so generally, gives hope and courage to all who recognize the power of journalism in the present transition age. . . . Its high purpose will be the public welfare, not alone locally or nationally, but the world's welfare. It will recognize that welfare is brought about not by commercial domination or by force of arms, not by the tyranny of a proletariat or of an oligarchy, of the educated few or the ignorant many, but by that powerful comradeship of all. . . .

A LEAGUE OF JOURNALISTS.

A League of Journalists—keeping open and free the avenues of world communication—and speaking just and fair may do even more to preserve sacred institutions of society, to promote and maintain world peace, to give larger life to all, than even the most skillfully balanced league of nations. In the last analysis, Public Opinion rules. Recorded, crystallized, interpreted, expressed by journalism it is supreme. . . . Without the press' aid, whatever the wise men at Washington may determine, there is no peace; disarmament is an iridescent dream. Increase the avenues of communication between nations and free news sources from the poison of interested propaganda and we thereby help to make a sick world well. Permit these avenues to be clogged, congested and corrupted and the fever of war returns apace. Open the door to the Washington and all conferences that involve international relations to the press of the world and there is great gain thereby. Debate and decide the destinies of people in secret and behind closed doors and whatever the good decision, its effect is weakened by the suspicion created by the very secrecy. The war dogs are unleashed behind closed doors, not when men talk with frankness at a conference table while the world looks on.

NATIONS NO LONGER SEPARATE.

Our meeting in this city suggests that no longer are the nations separate. No longer may they be unconcerned, the one with the welfare of the other, for all nations and all peoples everywhere are bound up in the sure bundle of the world's life. To serve the life of the world and not to do dis-service to those who live next door is the high mission of the journalism of today.

Impossible, you may say, the accomplishment of such a mission. Nay, nothing is impossible to those whose hearts are young, whose faith is sure, and who have ever before them the vision splendid of the profession of journalism—journalism, the great, unfinished, fascinating, new adventure.

At the close of the address messages were read from Spain, from Shanghai, and from the Philippine government, desiring the next session of the Press Congress. H. K. Tong, of the Chinese delegation, presented two handsome pieces of silverware, a cup and a miniature Chinese temple, to the Congress as an appreciation of the interest the world's press has taken in international life.

The appointment of committees closed the day's session, and adjournment was taken till return from the visit to Hawaii and Maui on the 17th.

On convening again many greetings from overseas were read, as also three other invitations for the next gathering of delegates. At the several sessions of the week, the following were among the contributors of papers presented for consideration:

Mr. Thales Coutoupes, of Athens, on the "Yellow Press," urging a campaign against it for its baneful influence.

H. K. Tong, of Peking, presented "China's Appeal for an Understanding," and W. D. Hornaday, of Austin, Texas, dealt with "Education in Journalism."

H. L. Bridgeman, of Brooklyn, N. Y., prophesied smaller

papers as more effective; V. R. Beteta, of Guatemala, N. Y., on a permanent press congress; K. P. Wang, of Shanghai, on China's destiny the destiny of the world; Henry Chung, of Korean Review, on obligation of journalists to international relations; M. Zumoto, of Tokio, on cultural war in the Pacific: Col. E. F. Lawson, of London, and V. S. McClatchy, of Sacramento, for free, unbiased world news service; G. Nieva, of Manila, plead for open sessions at the Washington conference; Riley H. Allen, on "How far is freedom of the press desirable and how safeguarded;" F. P. Glass, Sr., of Alabama, on "Tendencies in Present Day Journalism;" Oswald Mayraud, of Montreal, on "The History and Progress of Canadian Press;" Mrs. G. Townsend, of Los Angeles, on "Repression of Yellow Journalism;" Jabin Hsu, of Shanghai, on "Assistance of the Press for Peace;" H. U. Bailey, of Princeton, Ill., on "Circulation as a Basis of a Paper's Success;" Guy T. Inness, of Melbourne, on "Journalism in Australia;" Mrs. J. T. Warren, on "Interviewing as a Fine Art."

Tuesday's full sessions were supplemented in the evening with an address by Dr. H. E. Gregory, director of the Bishop Museum, upon the status and functions of the Museum in the explorations in the Pacific now in progress by it, in co-operation with several mainland institutions; followed by Dr. A. L. Dean, president of the University of Hawaii, with a paper on "The Conquering of Leprosy" by the use of chaulmoogra oil, showing the marked success that has attended the treatment of this malady the past few years.

The 20th was devoted to committee reports, resolutions and discussions, followed by election of officers. This resulted in the re-election of Dean Walter Williams, as president; Jas. Wright Brown, publisher of Editor and Publisher, New York, was elected secretary-treasurer; Frank P. Glass, of Birmingham, Ala., and Gardiner Kline, of Amsterdam, N. Y., as vice-presidents representing the United States, with others representing all countries.

Friday the 21st witnessed the birth of the Pan-Pacific

Press Conference that had been formulated by the Press Congress delegates during the Hawaii-Maui trip, as an integral branch of the Press Congress of the World, organization being effected in the legislative hall of the Executive Building by all Pacific countries represented, Lorrin A. Thurston being elected president, and Dr. Frank F. Bunker, secretary.

At the closing session, November 1st, President Williams termed the meeting of the Press Congress of the World at Honolulu a noteworthy success, one that will go a long way toward raising the standard of journalism, bringing about universal peace and enlightening and benefiting mankind. The congress had left as its legacy to the people of the Pacific the Pan-Pacific Press Conference, which alone would have been sufficient to mark the high tide in journalism wrought by the delegates at Honolulu.

Resolutions presented by Frank P. Glass, Sr., were passed expressing the heartfelt thanks of the delegates for the entertainment and hospitality extended them during their stay. Congress, with its over 200 delegates, representing eighteen countries, then adjourned.

Delegates to the Press Congress are as follows:

Mrs. H. P. Agee, Honolulu, Good Housekeeping, Saturday Evening Post.

Mrs. Henry J. Allen, Topeka, Kansas, Wichita Beacon, wife of publisher.

Riley H. Allen, Honolulu, Star-Bulletin, editor.

E. S. Brouson, El Reno, Okla., American, editor.

L. H. Bowen, Brookhaven, Mississippi, Wichita Beacon, wife of publisher.

Virgilio Rodriguer Beteta, Guatemala City, New York Spanish Press,

Thos. J. Blain, Port Chester, N. Y. Daily Item, editor.

Herbert L. Bridgman, Brooklyn, New York, Standard Union, business

James Wright Brown, New York City, 1117 World Building, Editor and Publisher.

Ivan T. Burney, Little Falls, N. Y., The Journal and Courier, editor. H. W. Bailey, Princeton, Ill., Bureau County Republican, editor.

Adam Breede, Hastings, Neb., Hastings Daily Tribune, editor.

A. A. Cross, Benton, Ky., Kentucky Press Association, publisher. Mark Cohen, Dunedin, N. Z., editor The Star.

Sara Cohen, Dunedin Star, editress, N. Z.

Mrs. Adna G. Clarke, Washington, D. C., writer of verse.

Mrs. N. B. Canaran, El Reno, Okla., El Reno American.

E. H. Childress, Fairfield, Ill., Wayme County Press, editor and publisher.

H. J. Clark, Venice, Cal., Venice Herald, owner.

Henry Chung, Washington, Korean Review, contributing editor.

Thales Coutoupis, Athens, Greece, New Ellas, editor.

J. B. Cain, Belle Plaine, Kansas News, publisher.

P. B. Danky, Matson Navigation representative,

S. E. DeRackin, Outlook, Santa Monica, Cal.

Mrs. S. B. W. Dean, Miami, Fla., Associated Press.

C. S. Dotson, New York City, special writer.

B. C. Dow, Sioux Falls, South Dakota, Daily Argus-Leader, publisher and manager.

William Easton, Dunedin, N. Z., Daily Times.

Frank O. Edgecombe, Geneva, Nebraska, Nebraska Signal, editor and publisher.

Omli Elder, Washington, Iowa, Evening Journal, editor.

Mrs. Le Favour, Amsterdam, N. Y., Evening Recorder.

Alexander Hume Ford, Honolulu.

Charles N. Fogg, Houlton, Houlton Times, editor.

Miss Helen M. Frye, Washington, D. C., Pen Woman.

Mrs. W. F. Frear, writer of verse, Honolulu.

Marshall Gordon, Columbia, Mo., Mo. Press Association.

W. D. Greason, Paola, Kansas, Miami Republican, associate editor.

Miss Mabel Louise Grissen, Grand Lodge, special correspondent.

S. G. Goldthwaite, Boone, Iowa, Daily News Republican, editor and publisher.

Frank Glass, representing American News, Birmingham.

Frank Glass, Jr., New York City, New York World, morning editor. Charles C. Hedley, Kennett Square, Pa., Kennett News and Advertiser, publisher:

John P. Herrick, News, Olean, N. Y.

Frederick P. Hall, Jamestown, N. Y., Journal, editor and publisher.

Hsu Jabin, Shanghai, China, China Press, editor.

H. B. Hale, East Hartford, Conn., Gazette, editor and publisher.

W. R. Hodges, Sleepy Eye, Herald-Dispatch, editor.

Mrs. Ralph A. Harris, Ottawa, Kansas, Ottawa Herald, publisher. David Heenan, Jr., Honolulu.

William D. Hornaday, Austin, Texas, University of Texas.

Guy Inness, Melbourne, Australia, Melbourne Herald, associate editor. Harry Iles, Los Angeles, Cal., Southwest Builder and Contractor, publisher.

John E. Junkin, Miami, Florida, National Editorial Association.

Miss W. Johnson, Hermosa, Cal., Manhattan Beach News, editor.

F. H. Johnston, Hermosa Beach, Review, publisher.

William Robert Kettle, Greymouth, N. Z., Greymouth Evening Star, business manager.

W. J. Kirkup, Melbourne, Australia, Stead's Review.

Frank L. Kern, Los Angeles, Worth While Magazine, associate editor. Eugene Kelley, Sioux City, Iowa, The Sioux City Tribune, publisher. Gardiner Kline, Amsterdam, N. Y., Evening Recorder, publisher.

Jay E. Klock, Kingston, N. Z., Kingston Daily Freeman, proprietor.

George W. Kriegesneau, Webster Goves, Mo., Webster News Times.

Agustin Lazo, Heraldo de Cuba, Havana, Cuba, reporter.

Mrs. C. W. Lennon, Sioux City, Iowa, The Tribune.

Col. E. F. Lawson, London, Eng., The Daily Telegraph, proprietor.

Doris H. Langley, Tippicanoe City, Ohio, The Herald, editor.

Danl. Logan, National Magazine representative.

Edgar F. Medary, Wankou, Iowa, Democrat, editor.

Frances C. Mitchell, Columbia, Mo., feature writer.

John R. Morris, Columbia, Mo., executive secretary, Press Congress.

Frank M. Mills, Sioux Falls, S. Dakota, On the Cast, editor.

Chas. Oswald Maynard, Montreal, La Presse, editor.

Mrs. Anna Blake Mezquida, League of American Pen Women, author.

C. H. McMaster, publisher Galveston Tribune.

Mrs. A. G. McAdams, Dallas, Texas.

William McCullough, Thames, Auckland, N. Z., Thames Star, late editor.

Mrs. Lillian McKeown, San Bernardino Daily Sun and Evening Telegram, reporter.

V. S. McClatchy, Sacramento Bee, publisher.

John F. Ness, Honolulu Press Club.

C. E. Nevin, Lazzrel, Neb., The Advocate.

Miss Anna E. Nolen, Monroe City, Mo., Semi-Weekly News, proprietor.

G. Nieva, Manila, The Philippine Review, editor.

Reginald W. Orcutt, New York, The Linotype Bulletin representative.

Thomas Petrie, Hongkong, South China Morning Post, editor.

Henry D. Pierce, Indianapolis, correspondent.

Miss M. E. Perry, Canadian Women's Press Club.

Hugh J. Powell, Coffeyville, Kansas, Journal, editor.

Mrs. Emma Reed, Los Angeles, Cal.

Mrs. John F. Rhodes, Hutchinson, Kansas.

Ludwig Saxe, Christiania, Norway; Verdens Gang; secretary Norwegian Press Association.

C. Stanley Smith, Dunedin, N. Z., Evening Star. Mrs. Mabel S. Shaw, Dixon, Ill., Evening Telegraph, owner.

William Southern, Jr., The Independence Examiner, editor.

Henry Stead, Melbourne, Australia, editor Stead's Review.

William J. Smith, Waukegan, Ill., Daily Sun, editor.

H. S. Sturgis, Neosho, Mo., The Neosho Times, editor.

Mrs. George C. Thorpe, Pearl Harbor, contributor.

Mrs. Louise M. Traer, Vinton, Ia., Vinton Eagle.

H. K. Tong, Pekin, China; Millard's Review, editor.

L. A. Thurston, Honolulu, publisher.

Mrs. Oda M. Temple, Mountain Home, Idaho; Mountain Home Republican, assistant editor.

Mrs. Georgina S. Townsend, Los Angeles, Cal., correspondent.

Edwin S. Underhill, Corning, N. Y.; The Evening Header, publisher. Miss Etta J. Ward, Winchendon Courier, owner.

K. P. Wang, Shanghai, China; The Shum Pai, associate editor.

Tien Wu Wang, Shanghai, China, Shum Pao, correspondent in U. S. A. Walter Williams, president of Press Congress, Columbia, Mo.

S. A. Woods, El Reno, Okla., Boomer, editor.

Arretta L. Watts, Long Beach, Cal., representing Long Beach Tele-

C. S. Wilke, Minneapolis, Minn., Gazette; Grey Eagle, Minn., owner.

Mrs. Charlotte Woodring, Peru, Ind., Peru Journal, owner.

Mrs. John Trenholm Warren, Honolulu.

Major J. H. Zerbey, Pottsville, Pa., Pottsville Republican, publisher.

M. Zumoto, Tokio, Japan, Herald of Asia, editor.

HONOLULU'S AD CLUB

BY CHARLES R. FRAZIER.

THE Honolulu Ad Club was organized on the sixth day of February, 1912. The organization was effected through the efforts of J. Charles Green of San Francisco and Charles R. Frazier of Honolulu, both advertising men. Mr. Green brought authority from the Associated Advertising Clubs of the World to form the club in Honolulu, and the Honolulu Ad Club became at once affiliated with the parent body.

The first meeting was held in a private dining room at the Commercial Club, and the following officers were elected: Wallace R. Farrington, president; Charles S. Crane, first vice-president; Richard H. Trent, second vice-president; Charles R. Frazier, secretary-treasurer. Messrs. P. A. Swift, J. F. Child, John Lennox, L. D. Timmons and George B. Curtis with the above named officers constituted the board of directors.

The Honolulu Ad Club has justified all predictions, made at the time of its organization, that it would become an active vital power for civic good. A membership of more than 500 is now enrolled. The Club has functioned as an open forum in Honolulu on many public questions and has to its credit several noteworthy achievements of a civic nature, such as promotion of the Army and Navy Y. M. C. A., and the good roads movement. Beginning August 10, 1920, the Club has published "Welakahao," a four-page weekly illustrated newspaper, as its official organ. George Mellen is editor. An idea of Club activities may be gained from the committees, which include: Advertising, Boy Scout, Civic Affairs, Conventions, Finance and Budget, Hawaiian, Inter-Island, Johnny Martin Memorial, Kalihi Hospital, Leahi Home, Music, Orient, Pan-Pacific, Program, Roads and Streets, Vigilance, Water Supply, Welakahao.

The Club meetings have been the most convenient vehicle for prominent speakers from all parts of the world to talk to the people of Honolulu. President Warren G. Harding became an active member during a visit to Honolulu several years ago.

. The Honolulu Ad Club has several unique features, such as requiring all speakers to stand on their chairs; putting only the affirmative side of any question to vote, and keeping no minutes of previous meetings. Its enthusiasm and unconventional methods have always charmed visitors.

Meetings are held every Wednesday noon throughout the year, usually in the blue room of the Alexander Young Hotel.

KILAUEA VOLCANO DURING 1921.

BY L. W. DE VIS-NORTON, SECRETARY HAWAIIAN VOLCANO RESEARCH ASSOCIATION.

THE year 1921 was ushered in at Kilauea Volcano by tremendous activity of flowing lava and free effervescence of gas through hundreds of bubbling fountains. At the beginning of January the lava, which had been steadily rising through the whole of the preceding month, overflowed on the southwest side of the pit into the outer crater. Two large cones which had formed over a crack on the southwest side were most conspicuous features throughout the month and sent great floods of lava out over the crater floor. The activity increased steadily until January the 17th, when subsidence set in. Two days later a marvelous whirlwind took place within the pit, hurling fountains of lava and fragments 150 feet into the air. Through the remainder of the month there was steady sinking of the lava column and the lakes were 60 feet below the rim of the pit on the 31st of the month.

This, however, marked the end of the sinking and the commencement of what proved to be one of the most spectacular displays of volcanic force at Kilauea since the year 1790. During the first week in February the lava column rose three feet per day with an accompanying elevation of the various

crags, islands, and benches within the pit. The second week of the month showed the great fire pit at the very height of its splendor while fresh floods of lava emerged from the rift to the southwest and poured steadily over that section of the main crater. At this time there were hundreds of lava fountains playing from five distinct lakes amid an accompaniment of hissing and flaming gas spiracles and flames and fumes of red, brown, blue, green and violet. The entire pit was brimming full of lava and spectators were able to stand within a few feet of the magnificent sight in perfect safety. A slow recession took place during the third week in February and this continued very slowly until the end of the month.

The period from the 17th to the 23rd of March will ever be remembered in the history of Kilauea Volcano. The month opened with continued subsidence amounting to about five feet per day, but slowing up during the second week to two feet per day. New islands and shoals appeared as the lava went down and there were many spectacular avalanches due to the breaking away of steep crags in various places.

The third week in March was marked by a steady rising of the lava, and for the first time in recorded history the larger crater of Kilauea was sending a lava flow through a gap in its southern rim. The fire lakes during this period were astonishingly quiet, but new islands were being rapidly pushed up from below and were becoming jagged crags 40 and 50 feet high.

Suddenly in the early morning of March 18th, the quiescence came to an end. The lakes rose 40 feet in a few hours and at six a. m. the pit was over-flowing its brim on three sides. A branch flow surrounded and burned one of the huts belonging to the observatory, and another flow in the southern section of the outer crater destroyed a famous accumulation of hot water algae. Halemaumau was intensely spectacular at this time. Three sink-hole cauldrons developed in the south-castern section of the pit, and enormous roaring fountains,

hurling vast fragments of molten magma over a wide area amid clouds of hot greenish-hued fume, developed.

The entire area of the great pit appeared as a mighty, seething cauldron, flinging its incandescent waves against whitehot cliffs which were thrown down and shattered to pieces amid the grinding of avalanches and the scream of escaping gas.

On March 23rd violent tornadoes generated by the up-rush of hot gas formed over the pit, drawing up masses of lava and surface skins and hurling them so far afield that at the observatory, more than three miles away, the roof was heavily covered with falling particles. The glare at night was so brilliant that print could be easily read at a distance of several miles from the pit.

The closing stage of the eruptive crisis came at the end of the month and sinking at the rate of more than ten feet per day commenced so that by April 3rd the lava lakes were 150 feet below the rim of the pit. Sinking, broken by short periods of rising, characterized the entire month and in the last week of April the lakes were nearly 250 feet below the upper rim. The two great cones on the southwest rift remained as bright gas furnaces making stalactites of delicate sculpture amid the light and shadow of the glowing interiors.

These conditions continued throughout the month of May, the lava lowering more rapidly than the peaks and islands. The general appearance was that of a number of large lava pools with high banks and in many cases lofty precipices overhanging them. At various periods during the month of May the crags went down faster than the lakes, giving the appearance of rising lakes. Several very heavy avalanches restored the general topography of the pit rim to something like the conditions obtaining prior to the March eruption. A very heavy earthquake occurred on the evening of May 19th. Through the month the southwest rift cones continued hot and glowing with beautiful stalactites within their openings.

During the month of June there was a period of marked stagnation in the Halemaumau pit, with heavily crusted lakes and a decrease in the open fountaining lava puddles. There was a slight rise between June 25th and 30th. At the end of the month there were numerous avalanches. Sight-seers were not fortunate during the daytime owing to the presence of smoky fumes, but were rewarded at night with interesting views of the pit. The rift walls still remained red hot.

During the month of July evidences of rising lava quickly developed. The most distinct indication of this was the development of brilliant incandescence all over the interior surface of the large underground chamber at the rift cone. The upper stalactite oven commenced to emit brilliant fumes and there was a great increase of heat.

Notwithstanding this, however, there was a slight subsidence of the lava column, the level of the lakes reaching a depth of 380 feet below the rim. The third week of the month was characterized by further slow subsidence and the two rift walls became dark while yet remaining extremely The week ending July 31st saw the commencement of a long spell of slow rising and this continued steadily throughout the entire month of August. By the 14th of this month, the Halemaumau pit was again becoming spectacular. Several large fountains were in action and flows were in progress over the benches within the pit. Liquid lava could be seen at a low level inside one of the rift wells which then commenced to develop incandescence and became a most interesting spectacle. It was noted that the lava within the rift chasm stood at an elevation of more than 200 feet higher than that of the lava within the Halemaumau pit.

The end of August was marked by strong rising and early in September an immense crag heaved itself rapidly up above its fellows, taking the form of a cathedral spire 130 feet high above the liquid lava. By September 11th the rise of lava was giving unmistakable signs of sensational eruption. Rising continued throughout the September equinox and the lakes reached a level of only 75 feet below the rim of the pit on the

20th. Crag after crag lifted steadily and came into view from the observatory three miles away. The crags were rising very irregularly and the rate of rising varied greatly in different sections of the pit.

These conditions were maintained until early in October when a rapid subsidence took place. About the 17th the rate of subsidence quickened and the crags and lakes commenced to go down as much as 30 feet per day. The peaks in view from the observatory disappeared on October 19th. There were many earthquakes at this time. Conditions became more spectacular as the lava went down and by the end of the month the chaos below the feet of the spectators presented a remarkable sight. Rocketing blasts of gas and lava, spouting through cones on the bottom of the pit, many fountains playing fiercely, and constantly falling avalanches provided a sensational display, particularly at night.

The lava continued to go down through the month and at the end of October was 360 feet below the pit rim. Similar conditions prevailed throughout November with no happening worthy of particular note.

Early in December, however, rising set in and continued up to the time of the solstice, with clear seeing and interesting displays of fountaining at all times.

Volcano House Transfer: The famous Lycurgus hostelry on the brink of Kilauea changed hands during summer to the Inter-Island Steam Navigation Co., and will be operated in connection with its Volcano route steamer service. Notwithstanding the enlargements during the Lycurgus many years' proprietorship, extensive alterations costing some \$30,000 have been made, including nineteen additional rooms, for the attraction and comfort of future guests in larger numbers. Even this change was sorely tested during the recent visit of the World Press Congress and party, which numbered some 250 in all.

NEW HAWAIIANA.

As the forms of our last issue closed there appeared "The Centennial Book, 1820-1920," a commemorative symposium by fifteen writers, published by the central committee of the Hawaiian Mission Centennial, a small qto., in paper and in boards, of some 90 pages with 42 illustrations of historic interest.

Memoirs of the Bernice Pauahi Bishop Museum, Vol. VIII, Nos. 1, and 2, issued during the summer, number 1 being "A Monographic Study of the Genus Prichardia," of 77 pages, by O. Beccari and Jos. F. Rock, with 24 plates. Number 2 is entitled "A Contribution to Samoan Somatology," by Louis R. Sullivan, based on the field studies of E. W. Gifford and W. C. McKern, of 20 pages letter press and six pages of plates, and is publication number 1 of the Bayard Dominick Expedition.

In the Occasional Papers series of the Museum (also this summer), No. 11 of Vol. VII, is given the report by Kenneth P. Emory on an "Archaeological Survey of Haleakala," of twenty-five pages letter-press, 8 vo., with map and plates, presenting evidence of ancient occupancy of the crater, which is a revelation to old residents.

"All About Hawaii," by Daniel Logan, an 8 vo. of 56 pages, in boards, freely illustrated, comes from the press of Chapple Pub. Co., Boston, professedly "aimed to meet the questions commonly asked about Hawaii."

"Life and Times of Mrs. Lucy G. Thurston," a reprint of the 1882 Ann Arbor edition, with an introduction by L. A. Thurston (a grandson), was issued in mid-summer by the Advertiser Pub. Co. for the "Cousin Society" descendants. A number of old-time illustrations and index are new features of this second edition of the quaintly told story of missionary pioneering in Hawaii. A 12 mo. cloth, of some 310 pages.

RETROSPECT FOR 1921.

CONGRATULATORY.

HAWAII rounds out another year in which she has been highly favored. Events of vast import for the public weal have claimed attention, and serious problems are in capable hands for solution. Meanwhile our various business activities give evidence of continued healthy and satisfactory condition.

Hawaii's "leaping into the lime-light of world publicity," referred to in our last review, is materially augmented by the gathering here this year of the "Educational Conference," and the "Press Congress of the World," for the consideration of matters in their respective spheres, and in which Hawaii's good influence was acknowledged. Both conferences are noted elsewhere in this issue, but the beneficial effects from the personal acquaintance and knowledge of Hawaii by so large a body of influential educators and journalists will be lasting.

The change of administration at Washington brings official changes here, and in the appointment of W. R. Farrington as governor to succeed C. J. McCarthy, resigned, President Harding shows his good-will spirit toward Hawaii, and a knowledge of local conditions through his visit here of several weeks in 1915. Governor Farrington's knowledge of Hawaii and its needs, and acquaintance with leaders of all races within our border, gives promise of a sound, progressive administration. And the selection of ex-Governor McCarthy by the Honolulu Chamber of Commerce as its representative at Washington, assures our delegate to Congress a capable helper in protecting Hawaii's interests.

Health conditions throughout the territory show improvement, and to the afflicted band of lepers the benefit of chaulmoogra oil treatment is giving further encouragement and hope of relief.

WEATHER.

The year has been marked with favorable weather, on the whole, though experiencing several stormy periods, notably in the winter months, during which shipping movements were seriously interfered with, but without mishaps. A severe kona storm prevailed throughout the group last December, doing considerable damage to roads, bridges and cultivated fields. January was also stormy, Hilo reporting, on the 6th, the heaviest rain of its record in twelve years, with exceptionally rough seas. A heavy rain storm that was quite general set in on the 14th, during which Oahu had a cloud-burst on the 16th that did much damage in various parts of Honolulu. An electric storm occurred February 17th, seriously affecting the wireless service for two days, following which settled weather for the most part has prevailed.

During the summer months warm, dry and sunny weather has been the rule, rainfall at most stations being below normal. October opened with a heavy kona rain with light southerly wind, but heavy thunder, lasting the better part of three days. November is giving a change of blustery trade winds.

LEGISLATIVE NOTES.

The 11th territorial legislature convened February 16th. The governor's message was lengthy and largely financial. The session was a full and busy one in dealing with the budget, increased bills, resolutions, petitions, etc. Among the many acts dealt with, the Rapid Transit franchise, and Language Press bill, had much discussion and not a few changes before adoption. The same may be said of the Rehabilitation act, which was pruned materially to be dealt with in congress. A court of Domestic Relations was enacted, Board of Welfare Commission established, and agricultural interests safe-guarded. School matters were favorably dealt with, as were also all Hawaiian measures. The so-called "Rest Day" bill, in the interest of sports and amusements, was squelched. Fewer freak bills were attempted than heretofore.

A special message on labor relief to our various agricultural industries received prompt action on its recommendations, to secure the necessary congressional aid for needed immigration. The appropriation bill for the next biennial term calls for \$6,527,588.15.

NOTED VISITORS.

Apart from the many notables in the Conference, and Trade bodies visiting Honolulu, noted elsewhere, among others was that of Myron T. Herrick (since ambassador to France); Dr. Jos. H. Hertz (chief rabbi of the British Empire) and party, on way to London from a Colonial tour; Mme. Schumann Heink for one day, July 29th, giving an afternoon concert at request of the Elks; Lord Northcliffe, London journalist, also for one day, en route to the Colonies; the "Brooklyn Eagle" party for the dedication of Kilauea National Park; Jascha Heifetz, noted violinist, for a few days en route to San Francisco, giving two concerts, and Fred B. Smith, en route to the Orient in the interests of international friendship.

HAWAIIAN HOMES COMMISSION.

This is the term adopted by congress for the rehabilitation project before the public the past two years, by act approved July 9th, 1921. Under its provisions Governor Farrington has appointed as its commissioners (of which he is chairman), Prince Kalanianaole, Rev. A. Akana, Rudolph Duncan and Geo. P. Cooke, the latter as its executive officer. The act is termed an experiment, for five years, and designates the trial to be on Molokai lands. Investigations have been made as to water supply, and for the more desirable localities to initiate the "back to the land" movement to insure its success. At this writing a decision has been reached to begin colonization on a small scale as early as possible, not later than January 1st, 1923.

FINANCIAL CAMPAIGNS.

The United Welfare drive last fall for this year's needs reached \$376,036. In view of changed conditions the call for 1922 was placed at \$275,000. Its three days' campaign realized \$265,736.

For specific objects, under Red Cross auspices, European Children's Relief reached \$60,000; Near East drive for \$25,000 secured \$34,393; Chinese Famine Relief obtained about \$16,000; Queen's Hospital fund (begun in 1920) reached \$270,000; Anti-Saloon League, \$10,000; Nuuanu Y. M. C. Λ. enlargement, \$35,000; Wellesley Alumnae drive, \$11,396; Elks Carnival some \$18,000.

Public Improvement bonds for specific projects have been taken up in Hilo and in Honolulu to the amound of \$1,565,000, and a new drive is called for.

PUBLIC IMPROVEMENTS.

Wharves, roads and bridges continue to claim attention, and never before so extensive in plan or provision for the future. This is clearly shown by the work in progress at the Esplanade corner, in the steel frame structure for passenger and freight sheds, two stories in height, connecting piers 8, 9 and 10, and the demolition of the Oceanic brick warehouse.

Of other wharf work, Hana's is finished, and the Mala (Lahaina) wharf is well under way. It is of concrete piles and deck, and with its approach is 1,000 feet in length by 50 in width, to cost \$254,830. Preliminary work has been done for a new wharf each at Hilo and Kahului.

Bridge work includes Haleiwa (Waialua) structure, costing \$71,000; Wailua's (Kauai), 390 feet long, for \$150,000; Hanamaulu's \$50,000, this latter in connection with the Ahukini Railway Terminal wharf project, costing \$100,000.

The cap-stone of the Nawiliwili breakwater was set to place, October 28th, with appropriate ceremonies, Governor Farrington giving the address.

Work has begun at last on the Waikiki Reclamation project, dredging beginning a canal 60 feet wide of nine feet depth, and utilizing the excavated material to raise adjoining tracts to grade established.

REAL ESTATE.

There has been marked activity in real estate transactions throughout the year, principally in the residential parts of the city and suburbs. The steady demand for homes and home sites brought into market several large holdings for subdivision. As in previous reports, the Waikiki section presents strong attractions, judging by the division of the Beckley and Shingle properties, adjoining the park, and the recorded sales of improved lots in other Waikiki tracts at full figures, among which is noted the Hustace property transfer to the Territorial Hotel Co. at \$100,000. Beachwalk and Royal Grove lots are also favored.

Restricted Manoa has special claims upon a large number of "homey" folks, nor are the handier lots in the Spreckels and Allen tracts neglected. Those desiring elevation find a charm on Pacific Heights, Alewa Heights, or in upper Nuuanu and Puunui.

Among business property transfers are: lot at junction of King and Beretania Sts., \$57,000, to Chinese; Honolulu Paper Co. acquires the Alakea St. property they have been occupying, at \$40,000; Brewer & Co. secures the Richards and King St. corner of the Allen block for \$155,000. Central Union church has secured the Dillingham homestead at Punahou and Beretania, as its new building site, at \$100,000. The Fairchild King St. tract transfers to the government for the Mc-Kinley school premises, at \$35,000; the Richards' home on Kapiolani St. for the Normal School annex, at same figure, and the historic Washington Place as the governor's residence, at \$55,000. The Scottish Rite Masons have bought the Christian Science church property, on Wilder Avenue, for \$60,000. The county has bought the Punchbowl-King St. property of the Cooke estate for \$90,000, as a city hall site.

The Weedon property on Alexander St. has sold for \$14,250, and the Colburn peninsular property, to close the estate at \$30,000.

A number of transfers to plantation corporations, on Oahu,

on Maui, and on Hawaii, from holding companies, at full figures, have been recorded since the passage of the Homes Act.

BUILDING NOTES.

Notwithstanding the continued building activity since our last review, there is still the cry of more homes required. Skilled mechanics have all found employment, and at full figures, as may be judged. The fine business block of T. H. Davies & Co., costing \$1,350,000, is receiving its finishing touches and being moved into. The federal building is nearing completion. A new business structure this year is the three-story concrete building of the Commercial Trust and Bank Co., on King near Fort.

The old Bijou theater has been torn down and the walls of a new building are rising in its place, of commodious size, and to be up-to-date in all its features, to cost \$223,000. The People's theater has not reached its finishing stage. The Queen's Hospital has added a two-story temporary wing, and Leahi Home is enlarging at a cost of about \$130,000.

In the effort to supply homes, leading lumber firms erected some sixteen cottages in the new Punahou tract, for disposal at \$2,500 each, and twenty cottages have been built in two other tracts costing about \$50,000. The Heen estate has erected four buildings at a cost of \$35,000. Another feature of the year is a number of "attached" houses built (mostly in the Waikiki district), in units of from two to eight each, at an outlay of \$77,000. Among the noted additions of the year is the W. F. Dillingham villa, on the slope of Leahi overlooking the park, to cost \$150,000, nearing completion; the Crehore residence on Judd St., costing \$35,000, and the new Y. W. C. A. homestead on King St.

The University of Hawaii adds laboratory buildings costing \$155,703, and at Iwilei the Inter-Island Co. have built a concrete warehouse, at pier 26, costing \$80,000, and the Cala. Packing Corporation a warehouse addition, at \$60,000.

At Waialua, Oahu, is the new Catholic church to replace

the one lost by fire, costing \$13,500, and a new branch of the Bank of Hawaii. The number of extensive building projects formulating gives promise of still busy times ahead.

Building permits to close of November totaled \$4,832,376.

KAMEHAMEHA DAY.

This national day to all Hawaiians was observed with the customary parade of the various native societies and affiliating fraternal orders, for the decorating of the Kamehameha statue in the Judiciary grounds, and assembling in the Capitol grounds for the patriotic literary and musical exercises.

This annual appeal June 11th to Hawaiian patriotism is bearing fruit; the societies increasing in membership and number, to do homage to the memory of their great king. The literary exercises, all by Hawaiians, in native and English, dealt with the strong points of Kamehameha's character which made him famous and endeared him in the hearts of his people, a worthy pattern for after generations to emulate.

The celebration closed with a ball interspersed with Hawaiian songs, at the armory in the evening that, like the events of the day, was largely attended.

CARNIVAL TIME.

The observance of Washington's birthday this year departed still further from its old-time form, in that there was no parade of either pa-u riders or the military. Everything centered in the Elks' Mid-Pacific Carnival at Moiliili field, with varied sport attractions by imported and local talent, and material aid from fun-makers of the army and navy in our midst.

Unsettled weather prevailed up to the eventful day, threatening to spoil the special fire-works exhibition for the night of the 22nd, but the grounds were duly treated to overcome its excessive moisture. The day turned out fine, and so did the public, judging by the large attendance at the events of the day, which totaled over 12,000 by 9 p. m., with many later. The amount realized over expenses for the season's frolic exceeded \$15,000.

FAST TRIPS FROM JAPAN.

Steamship Empire State, of the Pacific Mail Line, arriving here September 19th, made the run from Yokohama in eight days, forty minutes. The following month, the Golden State, also of the P. M. Line, arrived on the 19th in seven days and eighteen hours from Yokohama. The Hawkeye State was an earlier arrival in the day from the same port, reporting an eight day, four hour trip.

PAN-PACIFIC DAY.

This anniversary day, October 21st, was observed with augmented interest this year, due partly to its share in the Press Congress program; the receipt of more flags from coöperative lands, adding to the pageant of colors held in the presence of highest officials at the Executive building; as also a kindred interest in the formation of the Pan-Pacific Press Conference, an outgrowth of the World Congress.

ARMISTICE DAY.

Observance of this day was made more reverent this year through the message and example of President Harding, and the honor given the interment of the remains of the "unknown hero" at Arlington National Cemetery. Though far removed from that memorable scene, Honolulu followed official instructions for the day's observance in addition to the long colorful military, civic and school parade, with floats, marching through Kapiolani park, where impressive memorial arches, erected for the day, marked the line of march to the grand stand and speaker's rostrum.

LABOR DAY.

Labor day also took on an unusual holiday spirit this year. The various labor organizations joined in a pretentious street parade which formed at Aala park and marched to the Executive grounds for the literary exercises, opened by an address from Mayor Wilson. Rev. H. V. White delivered the address of the day. A general picnic at Kapiolani park followed, with sports and games for the young and their elders.

SPORTIVE EVENTS.

The Yale swimming team arrived July 27th and early took to their element at the University of Hawaii tank, to limber up for the contest with local celebrities. They were warmly greeted on ship and shore. The first meet was at the U. of H. natatorium, on the 29th, where they carried off the honors in high and fancy diving, but at the later contest in open water, at the dock, local stars won each event and set some new records.

At the annual regatta races this year Hilo carried off the honors, notwithstanding the Myrtle's new barge, Will C. Parke, built for the occasion.

In the Inter-Island Polo contests, the Maui team took the championship at the meet against Oahu and Cavalry teams.

The base ball team of the University of California, en route for the Orient, this summer, had a brush with the local Chinese team while in port, but gained no victory, honors being even.

AEROPLANE MISHAPS.

An army seaplane, from Pearl Harbor for Hilo, December 3d, 1920, running out of gasoline was forced into the sea off Ninole, Hawaii, and carried by wind and waves onto the rocks and wrecked. Its three occupants effected a landing (one being badly bruised), and were rescued by ropes let down from a 300-ft. cliff.

An army seaplane out on practice from Luke Field, July 12th, 1921, in which were Lt. U. C. Boquet and Sgt. Drew, met with engine trouble off Kaalawai, Diamond Head, and crashed down on the rocks of the reef, the flyers badly though not seriously hurt by the shock in the fall and the dashing surf. The machine, damaged, was taken apart by a body of rescuers that hastened to the scene, after rescuing the men.

The following day an army bi-plane shortly after starting from Luke Field on a practice flight, in charge of Maj. S. H. Wheeler, with Sgt. T. A. Kelly, suddenly crashed to the ground in a nose-dive from a height of 50 ft., instantly killing the aviators, exploding the gasoline tank and enveloping the machine in flames. Though witnessed by many, before helpers reached the scene the bodies of both victims, strapped in their seats, were burned to a crisp.

Another plane came to grief July 28th through a dead engine, the machine diving its nose into the Kewalo basin shoal and turning completely over, its two occupants narrowly escaping with but slight injuries. A further mishap occurred September 7th in the fall of a navy seaplane into the water of Pearl Harbor from a height of 300 ft., wrecking the plane, though both of its occupants escaped unhurt.

Two fatalities attended the practise exercises from Luke Field October 26th, through the crashing to earth of a De Haviland airplane, due to a tail-spin at a height of 2,000 ft. and explosion of its gasoline tank as it struck the ground nose on, killing Lt. U. C. Boquet and Sgt. V. E. Vickers.

PLANTATION NOTES.

Experiments of cane-growing by bud selection is proving all that was claimed for the method and care by its advisor, A. D. Shamel, expert of the U. S. department of agriculture, in his visits here the past two years. Improvements show an average of 168% and in places 200% as the highest gain over the usual method. Tests are in progress on several plantations and at the H. S. P. A. experiment station.

The leaf hopper problem is being solved encouragingly by the last introduced Queensland bug, cane fields hitherto infested now showing vigorous growth.

Kahuku Plantation has developed a new fuel-saving device for the burning of waste molasses, the ash therefrom serving as a high grade fertilizer. The same concern is expending \$18,600 for new and improved buildings for the comfort and benefit of its employes.

Two lots of Porto Rican laborers have arrived this summer, the first in several years, numbering 676 in all—men, wemen and children.

OYSTER AND TROUT TESTS.

Another lot of 23,000 rainbow trout eggs came from the U. S. fisheries station at Utah, Colorado, this summer, to the fish and game commissioner, for further test of our island streams. As last year, Kauai received the larger half, the balance going to Hawaii. Unfortunately the shipment arrived in poor condition, and still further misfertune attended stocking Hilo streams.

A shipment of 5,000 seed oysters from Sayville, L. I., via San Francisco, were received per *Matsonia*, May 24th, for another test of Hawaiian waters for their propagation; 2,000 were at once planted by H. L. Kelley of the fish and game commission in Pearl Harbor, and 3,000 were taken to Kaneohe bay by J. H. Wilson, for trial there. At last reports these latter give promise of success, but doubts are expressed of the others.

SHIPPING MISHAPS.

Schnr. Bertie Minor, from San Francisco for the New Hebrides, put into this port December 10th, 1920, with sprung boom and loss of sails through continuous bad weather.

S. S. Wilhelmina towed to this port the Dutch freighter Bali, disabled en route from San Francisco for Manila, arriving here December 30, 1920. The Bali was dry-docked for repairs to propeller and shaft.

Schnr. Zampa, Edmonson, master, arrived here February 28, 1921, in distress, 74 days from Apia en route for San Francisco, with loss of sails and leaking badly, through buffeting successive gales.

Japanese freight steamer *Tokuyo Maru* from the Sound, to touch at Honolulu, took fire May 2d and sank. The transport *Buford* hastened to her aid and rescued 65 persons from the doomed craft and landed them at Seattle. Eight lives were reported lost in the disaster.

The *Buckeye State* in leaving Baltimore June 11th for this port was obliged to return through fire in the engine room, necessitating delay for repairs and changes.

The four-masted schnr. Carrier Dove, Hansen, master, with a cargo of copra from Tonga for San Francisco, water-logged and disabled pumps for several days, went ashore at Kalae o Kalaau Point, west coast of Molokai, on the night of Nov. 2d and quickly went to pieces. Her crew of nine men got safe to land (two with broken arms), but they all lost all their effects.

FIRE NOTES.

A group of seven four-room cottages, occupied by Japanese, at Kakaako, were burned to the ground March 7th, loss placed at \$10,000.

The Catholic church and priest's cottage, adjoining, at Waialua, Oahu, were destroyed by fire March 10th. The altar, organ, and much of the fittings were fortunately saved.

A kerosene oil fire occurred on Sand Island on the afternoon of May 12th, in which 1,200 cases went up in smoke, just as the work of putting the consignment in order for reshipment was about completed.

A fire occurred at Fort Shafter May 26th, destroying a barn and hay shed, and in which seven horses were reported burned to death.

The Kaimuki residence of E. M. Brown, with all its furnishings, was destroyed by fire June 2d; loss estimated at \$8,000, partly insured.

Historic Ainahau, at Waikiki, was totally destroyed by fire August 2d, together with most of its furniture and fittings, on which \$15,000 insurance was carried.

Fire of unknown origin destroyed the fine residence, and its entire furnishings, of John Watt, on Thurston Street, at day-break of September 7th. Loss placed at \$40,000, on which there was an insurance of \$27,500.

At this writing the tug Mikiala, which has been specially fitted with a powerful fire-fighting equipment for water-front and shipping protection, is announced as ready for service should duty call.

A Palama district residence was completely destroyed by fire, with its contents, November 16th, and two adjoining houses badly damaged. Loss estimated at over \$2,000.

VISITING YACHTS.

English steam yacht Cutty Sark, a transformed torpedo boat, now the private yacht of Major Henry Keswick, M. P., arrived June 3d from London via the Orient. With the owner was Mrs. Keswick and several friends. Making but a few days' stay at this port, she departed for San Francisco, to touch at Hilo on the way for a call on Madam Pele.

Swedish yacht Fidra (formerly Lord Dunraven's English racing yacht Caseiad), with Lt. S. Tamm and party, arrived August 26th from Tahiti and Marquesas. After several days here, and a visit to Maui in an attempt to reach Hilo and the volcano, the South Sea voyage was resumed, leaving Kahului for Samoa.

The fine American bark-rigged steam yacht Aloha, of New York, P. Bezanson, master, arrived October 31st, by way of the canal and Hilo, on a world cruise with its owner, Commodore James and wife, and party of four guests. Spending a week of social festivities in Honolulu, the voyage was continued, to visit the Orient and India, thence to Europe and home.

MISCELLANEA.

Two navy seaplanes set out February 15th on a 1,500-mile flight to circuit the islands, visiting every harbor and bay in the group. They had severe experience in several thunder storms between Kealakeakua and Hilo, but without mishaps.

Hawaii's United Welfare work is attracting the attention of several mainland cities, with the prospect of a number adopting like community service.

Haleakala crater is revealing hidden treasures of ancient implements of warfare, etc., in caves and burial places that is rewarding the intelligent scientific investigator. The Island of Lanai is also giving evidence of early voyagers or settlers, not heretofore generally known.

CHAULMOOGRA SEED.

Seeds of the Chaulmoogra tree from Siam, through Prof. Jos. F. Rock, which came to the board of agriculture and forestry the early part of the year, are being propagated for planting out in the forest reserves. The first selected locality is Waiahole, Koolau, Oahu, where ground is being prepared and enclosed for the setting out of 4,000 plants, spaced twenty feet apart.

NECROLOGY.

The year's toll seems again heavy of early or well known residents, among whom are the following, here and abroad: Mrs. M. R. Hoogs (50), Miss A. F. Johnson (80), Mrs. W. J. Coon (63), E. Coit Hobron (87), Dr. K. Hoffman (51), Mrs. L. T. Winne (71), Sister Beatrice (92), Geo. W. Macfarlane, N. Y. (72), Mrs. Chas. A. Hartwell, in Mass. (35), Wm. J. Sheldon (63), J. S. Bailey (58), Mrs. M. Roth (73), H. S. Overend, Hilo (56), E. H. Paris (48), Mrs. E. S. Beckwith, N. Y. (84), A. Gartley (51), A. Richley (77), Bro. Charles (65), C. R. Lindsay, Maui (62), Mrs. E. C. Judd (81), Capt. J. C. Lorenzen (69), Wm. T. Balding (50), H. P. Bertelman (61), Dr. T. M. Coan, N. Y. (84), D. A. McNamara (46), A. Lidgate, Hilo (65), H. F. Wichman (55), D. O. Hamman (76), C. W. Ashford (64), Allen Herbert (93), Mrs. L. M. Severence, Hilo (70), Mrs. A. M. Lowrey (93), R. A. Wadsworth, Maui (60), Prof. A. B. Ingalls, N. Y. (60), Mrs. J. M. Atherton (78), C. H. Olson (39), Dr. H. L. Ross (40), Dr. A. F. Jackson, Phila. (43), J. S. Walker (52), Miss H. C. Pierce (77), Jos M. Little (61), Mrs. Kate L. Vida (84), Aug. Hanneberg (68), Mrs. D. H. Hitchcock (55), Mrs. A. Jaeger (66).

List of Sugar Plantations, Mills and Cane Growers Throughout the Islands.

Those marked with an asterisk (*) are planters only; those marked with a dagger (†) are mills only; all others are plantations complete, owning their own mills. (Corrected to November 15, 1921.)

| Apokaa Sugar Co.* | Location. Ewa, Oahu | Manager. G. F. Renton, Jr | Agents. Castle & Cooke, Ltd. |
|---------------------------------|------------------------|------------------------------|---|
| Ewa Plantation | Kauai | G. F. Renton, Jr | Castle & Cooke, Ltd. H. Waterhouse Trust Co., Ltd. |
| Grove Farm* | Nawiliwili, Kauai | Edwin Broadbent | American Factors, Ltd. |
| Hakalau Plantation Co | Hilo, Hawaii | J. M. Ross | C. Brewer & Co., Ltd. |
| Halawa Sugar Co | Kohala, Hawaii | Alexr. Black | T. H. Davies & Co., Ltd. |
| Hamakua Mill Co | uii | R. M. Lindsay | T. H. Davies & Co., Ltd. |
| Hawi Mill and Plantation Co | aii | John Hind | H. Waterhouse Trust Co., Ltd. |
| Hawaiian Agricultural Co | Kau, Hawaii | Jas. Campsie | C. Brewer & Co., Ltd. |
| Hawaiian Commercial & Sugar Co. | Puunene, Maui | F. F. Baldwin | Alexander & Baldwin, Ltd. |
| Hawaiian Sugar Co | Makaweli, Kauai | B. D. Baldwin | Alexander & Baldwin, Ltd. |
| Hawaii Mill Co.† | Hilo, Hawaii | Jas. Henderson | C. Brewer & Co., Ltd. |
| Hilo Sugar Co | Hilo, Hawaii | Alexr. Fraser | C. Brewer & Co., Ltd. |
| Honolulu Plantation Co | Halawa, Oahu | Jas. Gibb | C. Brewer & Co., Ltd. |
| Honokaa Sugar Co | Honokaa, Hawaii | W. P. Naquin | F. A. Schaefer & Co., Ltd. |
| Honomu Sugar Co | Hilo, Hawaii | Wm. Pullar | C. Brewer & Co., Ltd. |
| Hutchinson Sugar Plantation Co | Kau, Hawaii | W. Campsie | C. Brewer & Co., Ltd. |
| Kaeleku Sugar Co | Hana, Maui | W. K. Schultz | T. H. Davies & Co., Ltd. |
| • | Kahuku, Oahu | Andrew Adams | Alexander & Baldwin, Ltd. |
| : | | Jas. Johnston | T. H. Davies & Co., Ltd. |
| Kaiwiki Milling Co.† | Hilo, Hawaii | A. H. Cabrinha | Fred L. Waldron, Ltd. |
| Kekaha Sugar Co | Kekaha, Kauai | H. P. Faye | American Factors, Ltd. |
| | | L. D. Larsen | C. Brewer & Co., Ltd. |
| | Kipahulu, Maui | J. Fassoth | American Factors, Ltd. |
| Kipu Plantation | Lihue, Kauai | C. A. Rice | American Factors, Ltd. |
| - | Kohala, Hawaii | Geo. C. Watt | Castle & Cooke, Ltd. |

List of Sugar Plantations, Mills and Cane Growers Throughout the Islands.—Continued.

| - | The second secon | | |
|--------------------------------|--|-------------------|--|
| Name. | Location. | Manager. | Agents. |
| Koloa Sugar Co. | Koloa Kanai |) 4 | |
| Kona Development Co. | | T. Konno | American Factors, Ltd. |
| Koolau Agricultural Co.* | | J. F. Woollev | Alexander & Baldwin I +d |
| Laie Plantation* | | A. R. Ivins. | Alexander & Baldwin, Ltd. |
| Laupahoehoe Sugar Co | Laupahoehoe, Hawaii I | R. Hutchinson | T. H. Davies & Co. Ltd |
| Lihue Plantation Co | Lihue, Kauai I | R. D. Moler | American Factors, Ltd. |
| Makee Sugar Co | Kealia, Kauai | H. Wolters | American Factors, Ltd. |
| Maul Agricultural Co., Ltd | Paia, Maui | H. A. Baldwin | Alexander & Baldwin, Ltd. |
| McBryde Sugar Co., Ltd | Wahiawa, Kauai | F. A. Alexander | Alexander & Baldwin Ltd |
| Niulii Mill & Plantation | Kohala, Hawaii | J. A. McLennan | T. H. Davies & Co. Ltd |
| Oahu Sugar Co | Waipahu, Oahu | J. B. Thompson | American Factors Ltd |
| Olaa Sugar Co | • | A. J. Watt | American Frotors, Ital |
| Olowalu Co | | Alexr. Valentine | C Brown & Co I +d |
| Onomea Sugar Co | | John T Moir | C Brown & Co., Ltd. |
| Paauhau Sugar Plantation Co.* | aii | F M Anderson | C Browner & Co., Ltd. |
| Pacific Development Co., Ltd.* | | Tag & Groon | Enclaration of the Enclaration o |
| Pacific Sugar Mill (†) | aii | W P Naguin | Fred. L. Waldron, Lud. |
| Pepeekeo Sugar Co. | | Jas Webster | C Dromon & Co. Ltd. |
| Pioneer Mill Co., Ltd. | | A W Collins | Amorioan Pootons Ital |
| Puakea Plantation Co | Kohala, Hawaii | H. R. Bryant | H Waterhouse Trust Co I to |
| Union Mill Co | | L. W. Wishard | T. H. Davies & Co. Ltd. |
| Waiakea Mill Co | | | T. H. Davies & Co. Ltd. |
| Waialua Agricultural Co | Waialun, Oahu | W. W. Goodale | Castle & Cooke, Ltd. |
| Walanae Plantation | Waianae, Oahu | E. Brecht | J. M. Dowsett |
| Wallea Milling Co. (†) | | A. S. Costa | Fred L. Waldron, Ltd. |
| wailuku Sugar Co | • | H. B. Penhallow | C. Brewer & Co., Ltd. |
| Waimen Sugar Co | | Geo. Chalmers, Jr | C. Brewer & Co., Ltd. |
| walmea Sugar Mill Co | Waimea, Kauai | G. R. Ewart, Jr | American Factors, Ltd. |

HAWAIIAN SUGAR CROPS, IN TONS, 1916-21.

From Tables Prepared for Hawaiian Planters' Association by its Bureau of Labor and Statistics.

Prior years of this table, originating in 1891, will be found in Annuals since 1901.

| Islands. | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 |
|-----------------------------|--|-----------------|---------------|---------------|---------------|-----------------------|
| Draduction of Hawaii | 197,654 | 232,132 | 163,192 | 207,731 | 185,729 | 197,064 |
| Production of Hawaii " Maui | 150,312 | 147,648 | 137,786 | 133,991 | 136,176 | 115,599 |
| " " Oahu | 136,966 | 145,550 | 162,152 | 152,883 | 129,572 | 125,462 |
| " " Kauai | 108,551 | 119,244 | 113,712 | 109,998 | 105,400 | 101,071 |
| Nauai | | | | | | |
| Grand Total | 593,483 | 644,574 | 576,842 | 603,583 | 556,871 | 539,196 |
| | | | | | | |
| | | | | | | |
| Hawaii Plantations. | | | | | | |
| Waiakea Mill Co | 14,484 | 14,876 | 8,259 | 11,642 | 3,089 | 8,371 |
| Hawaii Mill Co | 1,845 | 3,653 | 2,203 | 2,763 | 1,872 | 2,951 |
| Hilo Sugar Co | 16,450 | 16,150 | 12,834 | 14,488 | 16,159 | 17,528 |
| Onomea Sugar Co | 18,732 | 21,067 | 16,923 | 19,698 | 18,871 | 17,458 |
| Pepeekeo Sugar Co | 9,345 | 11,040 | 8,281 | 9,087 | 9,786 | 9,509 |
| Honomu Sugar Co | 6,557 | 9,576 | 6,685 | 8,046 | 7,233 | 8,830 |
| Hakalau Plant. Co | 15,951 | 20,235 | 14,369 | 18,894 | 16,559 | 17,281 |
| Laupahoehoe Sgr. Co. | 10,174 | 11,302 | 14,626 | 8,208 | 11,433 | 13,277 |
| Kaiwiki Sugar Co | 5,013 | 7,191 | 4,625 | 5,938 | 5,707 | 5,141 |
| Kaiwiki Milling Co | | | | 1,019 | 324 | 1,220 |
| Kukaiau Mill Co | 3,118 | 5,056 | | | | |
| Hamakua Mill Co | 7,661 | 9,926 | 5,873 | 11,084 | 5,524 | 8,715 |
| Paauhau S. Plant. Co. | 7,859 | 10,868 | 5,140 | 6,843 | 7,898 | 8,029 |
| Honokaa Sugar Co | 7,232 | 9,031 | 4,696 | 7,290 | 5,330 | 5,729 |
| Pacific Sugar Mill | 5,656 | 7,970 | 4,713 | 6,551 | 5,761 | 5,354 |
| Niulii Mill and Plant. | 2,110 | 2,556 | 2,102 | 3,296 | 1,502 | 1,568 |
| Halawa Plantation | 1,705 | 2,559 | 1,310 | 3,115 | 2,129 | 1,709 |
| Kohala Sugar Co | 4,170 | 6,427 | 4,349 | 7,335 | 4,374 | 4,964 |
| Union Mill Co | 1,966 | 2,392 | 1,169 | 2,216 | 1,819 | 1,636 $4,762$ |
| Hawi Mill and Plant | 6,461 | 9,045 | 3,659 | 8,077 | 5,769 | 4,762 |
| Kona Developm't Co. | 144 | 4,555 | 1,762 | 3,205 7.898 | 2,412 $6,648$ | $\frac{4,219}{5,737}$ |
| Hutchinson S. Pl. Co. | 9,723 | 6,647 | 5,645 | 16,518 | 16,631 | 15,004 |
| Hawaiian Agrl. Co | 13,818 | 12,385 | 13,067 690 | 1,118 | 1,043 | 537 |
| Puakea Plantation | $\begin{array}{c} 963 \\ 26,476 \end{array}$ | $937 \\ 26,698$ | 20,212 | 23,402 | 27,856 | 26,731 |
| Olaa Sugar Co | 20,470 | 20,098 | 20,212 | 20,402 | 21,000 | 803 |
| Wailea Milling Co | | | | | | |
| | 197,654 | 232,132 | 163,192 | 207,731 | 185,729 | 197,064 |
| | | , , , , , , | | | | |
| | | | | | | |
| | | | | | | |

HAWAIIAN SUGAR CROPS, 1916-21—Continued.

| Maui Plantations. | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 |
|------------------------|---------|---------|---------|---------|---------|---------|
| Kipahulu Sugar Co | 848 | 1,510 | 1,240 | 1,730 | 1,083 | 1,521 |
| Kaeleku Plant. Co | 6,721 | 6,240 | 6,512 | 5,454 | 5,048 | 3,800 |
| Maui Agri. Co | 34,011 | 35,795 | 30,627 | 27,908 | 26,346 | 18,365 |
| Hawn. Coml. & S. Co. | 59,035 | 53,812 | 57,750 | 49,600 | 57,120 | 48,500 |
| Wailuku Sugar Co | 15,094 | 15,038 | 10,271 | 16,754 | 15,218 | 15,513 |
| Olowalu Co | 1,850 | 1,974 | 2,000 | 1,705 | 2,090 | 1,884 |
| Pioneer Mill Co., Ltd. | 32,753 | 33,279 | 29,386 | 29,840 | 29,265 | 26,016 |
| | 150,312 | 147,648 | 137,786 | 132,991 | 136,170 | 115,599 |
| Oahu Plantations. | | | | | | |
| Waimanalo Sgr. Co | 5,018 | 4,953 | 5,303 | 5,371 | 3,778 | 3,303 |
| Laie Plantation | 1,541 | 1,178 | 1,891 | 1,042 | 1,200 | 717 |
| Kahuku Plant. Co | 6,534 | 8,317 | 7,830 | 6,665 | 6,404 | 5,150 |
| Waialua Agrl. Co | 31,227 | 29,941 | 33,251 | 30,572 | 23,757 | 28,077 |
| Waianae Co | 4,626 | 6,115 | 5,815 | 5,818 | 6,038 | 6,502 |
| Ewa Plantation Co | 32,045 | 34,748 | 33,841 | 37,406 | 28,514 | 26,330 |
| Apokaa Sugar Co | 793 | 939 | 690 | 695 | 461 | 962 |
| Oahu Sugar Co | 33,625 | 37,211 | 50,005 | 43,980 | 40,829 | 39,602 |
| Honolulu Plant. Co | 20,586 | 21,562 | 22,042 | 20,320 | 17,348 | 13,694 |
| Koolau Agrl. Co | 971 | 586 | 1,484 | 994 | 1,243 | 1,125 |
| | 136,996 | 145,550 | 162,152 | 152,863 | 129,572 | 125,462 |
| Kauai Plantations. | 150,990 | 140,000 | 102,102 | 194,003 | 149,514 | 120,402 |
| Kilauea S. Plant. Co. | 5,216 | 5,924 | 5,335 | 4,755 | 7,275 | 4,280 |
| Makee Sugar Co | 5,138 | 13,509 | 11,641 | 15,128 | 12,302 | 13,639 |
| Lihue Plantation Co. | 20,168 | 20,174 | 18,424 | 17,876 | 13,507 | 12.747 |
| Grove Farm Plntn | 3,569 | 3,836 | 3,790 | 3,758 | 4,533 | 4.040 |
| Koloa Sugar Co | 7,955 | 9,206 | 9,400 | 9,166 | 6,977 | 8,379 |
| McBryde Sugar Co | 15,598 | 17,407 | 15,639 | 17,606 | 13,768 | 14,021 |
| Hawaiian Sugar Co | 23,194 | 23,534 | 22,673 | 21,104 | 20,143 | 19,915 |
| Gay & Robinson | 4,650 | 4,510 | 5,661 | 4,340 | 4,000 | 5,703 |
| Waimea Sgr. Mill Co. | 2,054 | 1,965 | 2,203 | 1,565 | 2,572 | 1,858 |
| Kekaha Sugar Co | 16,107 | 18,354 | 17,986 | 14,700 | 18,541 | 14.675 |
| Estate of V. Knudsen | 902 | 925 | 960 | | | |
| Kipu Plantation | | | | | 1,782 | 1,820 |
| Total | 108,551 | 119,244 | 113,712 | 109,998 | 105,400 | 101,071 |

Only twenty Plantations had finished their season's grinding at date of closing the foregoing table.

TERRITORIAL REGISTER AND DIRECTORY FOR 1922.

Corrected to December 1, 1921.

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|---|---|
| TERRITORIAL OFFICIALS. | CIRCUIT COURTS. |
| W. R. FarringtonGovernor | First Judge 1st Circuit, Oahu |
| Raymond C. BrownSecretary | Frank Andrade |
| H. IrwinAttorney General | Second Judge 1st Circuit, Oahu |
| A. Lewis, JrTreasurer | Third Judge 1st Circuit, Oahu |
| L. H. BigelowSupt. Public Works | |
| C. T. BaileyComr. Public Lands Vaughan MacCaugheySupt. Pub. Instr. | Second Circuit, MauiHon. L. L. Burr |
| Manley K. HopkinsAuditor | Third Circuit, Hawaii |
| W. P. JarrettHigh Sheriff | |
| John F. StoneSecretary to Governor | Fourth Circuit, Hawaii |
| | Fifth Circuit, Kauai |
| Jonah K. Kalanianaole | |
| | CLERKS OF COURTS. |
| LEGISLATIVE BODY. | Clerk Supreme CourtJ. A. Thompson |
| SENATORS. | Asst. Clerk, Supreme Court |
| Hawaii—E. A. K. Akina, J. W. Russell, S. L. Desha, Robt. Hind. | Robt. Parker, Jr. Stenographer, Supreme Court |
| Maui—H. A. Baldwin, A. F. Tavares, H. | |
| W. Rice. | Bailiff and Librarian Supreme CourtAlbert MacAulton |
| Oahu—Chas. E. King, C. F. Chilling- | CopyistsGenevieve Sengstacken |
| worth, Wm. M. Ahia, L. M. Judd, J. Lucas, Jno. Wise. | Elizabeth Haili |
| Kauai—Chas. A. Rice, J. A. Kealoha. | Circuit Court, First Circuit. |
| REPRESENTATIVES. | Chief Clerk and CashierHenry Smith |
| Hawaii—H. L. Holstein, N. K. Lyman, | Assistant Clerks |
| W. C. Vannatta, H. J. Lyman, E. da | Clerks, 1st Judge |
| Silva, F. K. Aona, E. M. Muller, G. K. Kawaha. | H. A. Wilder, William Hairston |
| Maui—Jno. Fassoth, L. L. Joseph, M. G. | Clerks, 2d JudgeA. V. Hogan, A. E. Restarick |
| Paschoal, P. V. Goodness, L. B. Ka- | Clerks, 3rd Judge |
| umeheiwa, J. W. Kalua. | Wm. Hoopai, David K. Sherwood StenographersJ. L. |
| Oahu—Lorrin Andrews, Jas. K. Jarrett, Robt. Ahuna, Geo. H. Holt, Jr., D. | Horner, H. R. Jordan, G. D. Bell |
| Robt. Ahuna, Geo. H. Holt, Jr., D. M. Kupihea, E. K. Fernandez, F. | Clerk, Second Circuit, Maui |
| Archer, A. M. Cristy, C. H. Cooke, G. P. Wilder, F. D. Lowrey, J. Uluihi. | Clerk, Third Circuit, Hawaii |
| Kauai-W. A. Fernandez, D. K. Haysel- | John Hills |
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Organized 1852. Annual Meeting June.

BRITISH BENEVOLENT SOCIETY. Organized 1869.

President (ex-officio)...H.B.M.'s Consul Vice-President Rev. Wm. Ault Secretary W. C. Shields Treasurer H. B. Sinclair

HAWAIIAN HUMANE SOCIETY.

Originated 1897. Organized Sept. 1908.

| OAHU CEMETERY ASSOCIATION. | BRITISH CLUB. |
|--|---|
| | Reorganized 1915. |
| Organized 1844. | |
| PresidentF. J. Lowrey | PresidentT. P. Cadle Vice-PresidentT. A. Burningham |
| Vice-PresidentS. G. Wilder | SecretaryG. B. Marshall |
| Secretary | TreasurerJ. B. Schofield |
| Treasurer | Auditor |
| THE OUTDOOR CIRCLE. | COUNTRY CLUB. |
| (For the beautifying of Honolulu.) | |
| | Organized 1906. |
| Organized May, 1912. | President |
| PresidentMrs. F. R. Day | Marvin. |
| 1st Vice-President. Mrs. C. J. McCarthy | SecretaryG. H. Buttolph |
| 2d Vice-PresidentA. J. Campbell SecretaryMrs. Jos. French | Treasurer |
| TreasurerMrs. Z. K. Myers | OUTRIGGER CLUB. |
| Ex. OfficerMrs. A. H. Tarleton | |
| | Organized May, 1908. |
| PACIFIC CLUB. | President |
| Organized 1852. Premises on Alakea | Secretary |
| Street, two doors below Beretania. | TreasurerF. C. Bailey |
| PresidentJ. N. S. Williams | Captain G. D. Center |
| Vice-Presidents—J. O. Carter, Dr. A. G. | TYONEDAYO A TITLY TA DAY |
| Hodgins. SecretaryG. C. Potter | WOMEN'S AUXILIARY. |
| TreasurerW. H. McInerny | Organized March, 1909. |
| | PresidentMrs. F. M. Swanzy |
| UNIVERSITY CLUB. | Vice-Presidents—Mrs. A. Fuller, Mrs. |
| Organized 1905. | I. M. Cox. TreasurerMrs. W. J. MacNiel |
| PresidentDr. A. G. Hodgins | SecretaryMrs. W. A. Wall |
| Vice-President M. F. Prosser | |
| Secretary | HONOLULU ART SOCIETY. |
| Treasurer A. M. Nowell Auditor H. D. Young | Organized Nov. 7, 1919. |
| Auditor D. Touris | PresidentB. L. Marx |
| PSYCHICAL RESEARCH SOCIETY | Vice-PresidentA. L. Dean SecretaryMrs. T. A. Fisher |
| Organized Dec. 9, 1919. | TreasurerE. W. Sutton |
| | DirectorMrs. A. G. M. Robertson |
| PresidentS. B. Dole Vice-PresidentMrs. J. M. Dowsett | HAWAIIAN ASSOCIATION, A. A. U. |
| Secretary | Formed 1910. |
| Treasurer | PresidentGeo. David Center |
| | Vice-PresidentA. T. Longley |
| HAWAIIAN VOLCANO RESEARCH | SecTreasMrs. F. L. Leo |
| ASSOCIATION. | Registration Com.—B. H. Clark. |
| Organized Oct., 1911. | AD CLUB. |
| PresidentL. A. Thurston | Organized Feb. 6, 1912. |
| Vice-PresidentW. D. Westervelt | PresidentV. MacCaughey |
| Vice-PresidentC. H. Atherton | |
| TreasurerL. T. Peck SecretaryL. W. de Vis-Norton | Vice-President |
| Observatory DirectorDr. T. A. Jaggar, Jr. | TreasurerC. H. Medcalf |
| Dr. T. A. Jaggar, Jr. | HONOLULU PRESS CLUB. |
| COMMERCIAL CLUB OF HONOLULU. | Organized May 10, 1921. |
| Organized Aug. 30, 1906. | PresidentMrs. John Trenholm Warren |
| | Honorary PresidentGeorge Nellist |
| President L. M. Underwood | First Vice-PresidentJohn F. Stone Second Vice-PresidentRiley H. Allen |
| Vice-PresidentJ. F. Jeffries SecretaryJ. T. Phillips | Recording SecretaryJohn Ness |
| TreasurerD. F. McCorriston | Corresponding Secretary, Mrs. Gene Silk |
| | Historian Mrs. Adna G. Clarke |
| ROTARY CLUB OF HONOLULU. | LibrarianMiss Emily V. Warriner |
| Organized March 4, 1915. | HAWAIIAN CIVIC CLUB. |
| President | Organized 1918. |
| Vice-PresidentAlbert W. Palmer | PresidentJ. H. Magoon |
| TreasurerCharles G. Heiser, Jr. | Vice-PresidentWm. E. Miles SecretaryF. L. Akana |
| Secretary Floyd Perkins Sergeant-at-armsHarry B. Bailey | Treasurer |
| | |

| KONA | IMPROVEMENT CLUB. HAWAII. |
|--------|---------------------------|
| | Organized 1912. |
| sident | Rev. D. Douglas Wall |

Vice-PresidentR. V. Woods Secretary W. D. McKillop TreasurerRobt. Wallace

HONOLULU AUTOMOBILE CLUB. Organized Feb. 5, 1915.

President...J. T. Warren
Vice-President...G. Fred Bush
Secretary...A. M. Cristy
Treasurer...Stanley Livingston
Manager...LeRoy Blessing

HONOLULU FIRE DEPARTMENT.

Originally organized 1851, and conducted as volunteers till March 1, 1893, when it was changed to a paid dept.

Chief Engineer—Chas. Thurston. Asst. Engineer—Wm. Blaisdell.

Asst. Engineer—Wm. Blaisdell.
Engine No. 1—Location Central Station,
cor. Fort and Beretania streets.
Engine No. 2—Location, Central Station, cor. Fort and Beretania Sts.
Chemical Co. No. 1—Location, Central
Station, cor. Fort and Beretania Sts.
Hook and Ladder Truck—Location, Central Station, cor. Fort and Beretania

tral Station, cor. Fort and Beretania.
Ingine Co. No. 3—Location cor. Wilder avenue and Piikoi street.
Engine Co. No. 4—Location King street and Austin lane.

Engine Co. No. 5-Location Kaimuki.

OAHU COLLEGE. Founded 1841. Opened July 11, 1842.

A. F. Griffiths, A. M...........President Levi C. Howland....Asst. to President

Academy Faculty.

Ernest T. Chase.................Principal Catherine Johnson, Clara L. Murray....
Office Secretaries John S. Beattie.....Business Susan G. Clark.....Latin Col. Adna G. Clarke..Military Instructor Carolyn E. Fosdick, Eda A. Schmutzler. Mlle. Holliday.....Head French Dept. Justin K. Dyche. . Mathematics & Science

Elementary School.

Mary P. Winne.....Principal Emma Barnhard, Claire H. Uecke, Doris

Genevieve Bell, Edith Kribs, Mary F. On leave of absence.

Junior Academy.

Simpson English
Olive B. Kelser . . . Geography & Science
Violet S. Hooval Latin
Lilla Armis, Mary E. Hall . Mathematics
Lucille Saxton Science & Latin
Mms. Cramer, Laurene Steven . . . French

Music School.

Special Teachers, Etc.

Una Appleby.......Oral Expression
Mabel M. Hawthorne....Librarian
Mrs. Mabel Faulkner...Asst. Librarian
Mrs. Ethel Vaughan, Jane L. Winne....

UNIVERSITY OF HAWAII.

Established as College of Hawaii March, 1907; Opened Feb., 1908.

Board of Regents.

R. Hemenway.....Chairman Atkinson, ex-officio.

Faculty List.

Faculty List.

Arthur L. Dean, A. B. (Harvard '00), Ph.D. (Yale '02).......President John S. Donaghho, A. B. (Marietta '89), A. M. (Marietta '97)..Professor of Mathematics and Astronomy.

John M. Young, B. S. (Univ. Florida '98), M. E. (Cornell '02), M. M. E. (Cornell '04)..Professor of Engineering Arthur R. Keller, C. E. (Cornell '03), LL.B. (National Univ. '06), S. M. C. E. (Harvard '16), M. S. (Mass. Inst. Tech. '16)—Dean of the College of Applied Science, Professor of Civil Engineering. Engineering.

Frank T. Dillingham, N. S. (Worcester Polytechnic Institute '01), M. A. (Yale '16)—Professor of Chemistry. Arthur L. Andrews, B. L. (Cornell '93), M. L. (Cornell '95), Ph.D. (Cornell '02)—Dean of the College of Arts and Sciences—Professor of English.

Minnie E. Chipman (Woman's Art School, N. Y.)—Professor of Ceramics and Design.

Design.

Arnold Romberg*, A. B. (Univ. of Texas '10), Ph.D. (Harvary '15)—Professor

of Physics.
Louis A. Henke, B. S. (Univ. of Wisconsin '12)—Professor of Agriculture.
David L. Crawford, B. A. (Pomona '11),
M. A. Stanford '12)—Professor of

Richard Wrenshall, Ph.B. (Yale '11), Ph.D. (Yale '15)—Professor of Chemistrv

Irving O. Pecker, A. B. (Boston Univ. '12), Alliance Francaise, Sorbonne, Paris—Professor of Romance Languages.

guages.

Herbert F. Bergman; B. S. (Kansas Agric. Col. '05), M. S. (Univ. of Minn. '15), Ph.D. (Univ. of Minn. '18)

—Professor of Botany.

Romanzo Adams, A. B. (Univ. of Mich. '97), A. M. (Univ. of Mich. '98), Ph.D. (Univ. of Chicago '02)—Professor of Economics and Sociology.

Charles H. Edmondson, Ph.B. (Univ. of Iowa '03), M. S. (Univ. of Iowa '04), Ph.D. (Univ. of Iowa '06)—Professor of Zoology and Director of Marine Biological Laboratory.

Carl B. Andrews, B. S., M. S. (Rose Polytechnic Institute)—Professor of Engineering.

gineering. Tasuku Harada, B. D. (Yale '91), D. D. Amherst '10), LL.D (Edinborough '10)—Professor of Japanese Language

and History.

Jesse K. Flanders, A. B. (Bates '04), A.
M. (Stanford '17)—Professor of Education and Psychology.

Karl C. Leebrick, A. B. (Univ. of California), Ph.D (Univ. of California)

'17)—Professor of History and Political Science

'17)—Professor of History and Political Science.

Tien Mu Wang (Chin-shih)—Professor of Chinese Language and History.

Anna von Balzer Dahl (formerly head of Vienna School of Costume Designing, San Francisco)—Assistant Professor of Textiles and Design.

Harold S. Palmer, B. A. (Yale '12)—Assistant Professor of Geology.

Mildred M. Yoder, Ph.B. (Oberlin '94)
—Instructor in History.

Clara F. Hemenway—Librarian.

Clara F. Hemenway—Librarian. W. R. McAllep—Lecturer, Sugar Manufacturing.

Alice E. Harbaugh—Instructor in Draw-ing and Ceramics. Frederick G. Krauss—Professor of Agron-

omy.
Lt. Col. Adna G. Clarke, Retired (L.L.B.,
A. B., Kansas Univ. 1900; Graduate Artillery School 1906; Graduate Army
Staff College 1914)—Professor of Military Science and Tactics.

S. D. Porteus, M. D.—Director Psycho-

logical Clinic and Professor of Clinic-

al Psychology.

Willard J. Fisher, Ph.D.—Acting Professor of Physics.
Charles H. Neil, A. B. (Univ. of So. Carolina, '03)—Assistant Professor of

English.

Laura V. Schwartz, B. A. (College of the Pacific '20), M. A. (Stanford '21)—
Instructor in English.

H. Darwin Kirschman, B. S. (Throop '18), M. S. (Throop '19)—Instructor in Chemistry.

Frederick W. Beckley—Instructor in the Hawaiian Language. J. T. Phillips—Instructor in Accounting.

Harriet K. Flanders, M. D.—Instructor in Physical Education for Women. Otto Klum—Instructor in Athletics for

Men. Catherine Pratt, B. A. (Smith '21)—As-

sistant in Botany.
Capt. E. A. Rudelius, Assistant Professor of Military Science and Tactics.
May K. Gay—Assistant in Physical Education for Women.

(*) On leave of absence.

MID-PACIFIC INSTITUTE.

Boys' Department (Mills School)

Girls' Department (Kawaihao Seminary)

FACULTY AND ASSISTANTS KAMEHAMEHA SCHOOLS

Founded 1884. Opened Oct. 3, 1887.

Senior Division.

Teachers—Helen L. Stapleford, E. H. Bryan, R. H. Lowrie.

School for Boys.

George H. Kennedy.

Preparatory Department. Opened Sept., 1888.

School for Girls. Opened 1894.

Abbie H. Newton (a) Principal Frances A. Lemmon . . . Acting Frincipal Teachers—Carolyn Church, S. Katherine Burgner, Ora L. Saunders, Emma E. Winslow, Dorothy H. George, Lydia J. Williamson, Emma S. Noeckel, Olive Leeper, Harriet E. McGee, Norma L. Olsen, Ida R. Andersen.

Other Officers and Assistants.

Boarding Departments.

Matrons—Harriet E. McCracken (a), Elsie M. Tennyson, Bertha L. Van Auken, Dorothy George, Leila B. Chaffee.

trons' Assistants—Daisy Bell, Han-nah W. Springer, Christina Malao, Matrons' Lydia Kapu.

Health Department.

(a) On leave of absence for year 1921-22.

PRINCIPAL PUBLICATIONS.

Sunday Advertiser, issued every Sunday morning by the Advertiser Pub. Co., Ltd., Sam'l B. Trissel, Editor.

The Daily Pacific Commercial Advertiser, issued by the Advertiser Pub. Co. every morning (except Sunday). Sam'l B. Trisssel, Editor.

The Honolulu Star-Bulletin, issued every evening (except Sundays), by the Honolulu Star-Bulletin, Ltd., Riley H. Allen, Editor. Semi-weekly issued on Mondays and Thursdays.

The Guide; issued every Tuesday and Friday morning by the Guide Pub.

The Friend, Organ of the Hawaiian Board, issued monthly. F. S. Scudder, Managing Editor.

The Hawaiian Church Chronicle, issued on the first Saturday of every month. Rt. Rev. John D. La Mothe, Editor.

The Paradise of the Pacific, issued monthly. Mrs. E. A. Langton-Boyle, Editor-Publisher.

The Mid-Pacific Monthly, an illustrated descriptive magazine. Alex Ford, Editor and Publisher. Alex. Hume

The Hawaiian Forester and Agricultur-ist, issued monthly under direction of Board of Com. Agr. and Forestry.

Hawaii Educational Review, issued monthly, Vaughan MacCaughey, Editor.

The Kuokoa (native), weekly, issued every Friday morning by the Hawaiian Gazette Co., Ltd. Solomon Hanohano, Editor.

Aloha Aina (native), issued every Saturday. E. K. Hanapi, Editor.

Ke Alakai o Hawaii (native), issued each Friday, Jonah Kumalae, Editor.

O Luso (Portuguese), issued weekly on Saturdays. A. H. R. Viera, Editor.

Chee Yow Shin Bo (The Liberty News), tri-weekly, Chinese.

Sun Chung Kwock Bo, tri-weekly. Chinese.

Hawaii Shinpo, issued daily in Japanese. H. Tsurushima, Editor.

The Daily Nippu Jiji, Y. Soga, Editor, issued by the Nippu Jiji Co., Ltd.

Hilo Daily Tribune, issued by the Tribune. Pub. Co., Saml. Putnam, Editor.

The Hawaii Herald, issued at Hilo by the Post-Herald, Ltd. F. J. Cody,

The Maui News, issued daily at Wailuku, Maui. Jas. H. Gray, Editor.

The Wanuku Times, Maui, issued weekly on Tuesday, A. V. Vetleson, Publisher.

The Garden Island, issued weekly at Lihue, Kauai. K. C. Hopper, Managing

Hoku o Hawaii, issued on Friday of each week, at Hilo. Rev. S. L. Desha, Editor.

THE HAWAIIAN ANNUAL, issued the latter part of December for the following year. Thos. G. Thrum, Editor and Publisher.

HONOLULU LODGES, ETC.

Lodge le Progres de l'Oceanie No. 371, F. & A. M.; meets on the last Mon-day in each month in Masonic hall.

Hawaiian Lodge, No. 21, F. & A. M.; meets in its Hall, Masonic Temple, corner Hotel and Alakea streets, on the first Monday in each month.

Honolulu Chapter, No. 1, R. A. M.; meets in Masonic Hall on the second Thursday of each month.

Honolulu Commandery, No. 1, Knights Templar; meets in Masonic Hall on third Thursday of each month.

Mystic Shrine, Aloha Temple. No stated time of meeting. Meets at Masonie Hall.

Kamehameha Lodge of Perfection, No. 1, A. & A. S. R.; meets in Masonic Hall on the fourth Thursday of each month.

Nuuanu Chapter of Rose Croix, No. 1, A. & A. S. R.: meets in Masonic Hall on the first Thursday in the month.

Alexander Liholiho Council, No. 1, of Kadosh; meets on the third Monday of alternate months from February.

- Honolulu Lodge, No. 409, F. & A. M.; meets at Masonic Hall every second Monday of the month.
- Leahi Chapter, No. 2, Order of the Eastern Star; meets on third Monday of each month in Masonic Hall.
- Lei Aloha Chapter, No. 3, Order of the Eastern Star; meets on second Saturday of each month in Masonic Temple.
- Harmony Chapter, No. 4, Order of the Eastern Star, meets on third Saturday of each month in Masonic Temple, at 7:30 p. m.
- Excelsior Lodge, No. 1, I, O, O, F.; meets at the hall in Odd Fellows' Building, on Fort St., every Tuesday evening.
- Harmony Lodge, No. 2, I. O. O. F.; meets each Monday evening in Odd Fellows' Building, Fort street.
- Pacific Degree Lodge, No. 1, Daughters of Rebekah; meets in Odd Fellows' Building, Fort street, second and fourth Thursdays of each month.
- Olive Branch Rebekah, No. 2, I. O. O. F.; meets first and third Thursdays each month in Odd Fellows' Building.
- Polynesian Encampment, No. 1, I. O. O. F.; meets in Odd Fellows' Building, Fort street, first and third Fridays of each month.
- Canton Oahu, No. 1, P. M., I. O. O. F.; meets second Friday each month in Odd Fellows' Hall, Fort St.
- Mystic Lodge, No. 2, K. of P.; meets every Friday evening at Pythian Hall, cor. Beretania and Fort streets.
- Section N. 225—Endowment Rank, K. of P.; meets on the second Saturday of January, July and December in Pythian Hall.
- Honolulu Temple, No. 1, Rathbone Sisters; meets in Pythian Hall, first and third Tuesday evenings of each month.
- Wm. McKinley Lodge, No. 8, K. of P.; meets first and third Tuesday evenings in Pythian Hall.
- Hawaiian Tribe, No. 1, I. O. Red Men; meets on first and third Thursdays of each month in San Antonio Hall.
- Court Lunalilo No. 6600, A. O. of Foresters; meets in Phoenix Hall on first and third Wednesdays of each month.
- Court Camoes No. 8110, A. O. F.; meets second and fourth Tuesday evenings of month in San Antonio Hall.
- Theo. Roosevelt Camp, No. 1, Dept. of Hawaii, U. S. W. V.; first and third Saturdays each month at Ft. Shafter.
- Honolulu Nest No. 1766, Order of Owls.; meets on the second and fourth Tuesdays of each month at 7:30 p. m. in Phoenix Hall. Visiting Owls are requested to attend.
- Capt. Cook Lodge, No. 353, Order Sons of St. George; meets at Pythian Hall second and fourth Thursday each month.

- Court Hawaii, No. 3769, Independent Order of Foresters; meets third Monday of each month.
- Damien Council, Young Men's Institute; meets second and fourth Wednesdays of each month at Catholic Mission Hall.
- Honolulu Lodge, B. P. O. Elks, 616; meets every Friday evening in the Elks' Building, King street near Fort.
- Honolulu Aerie, No. 140, Fraternal Order of Eagles; meets second and fourth Wednesdays each month in K. of P. Hall.
- Honolulu Lodge No. 1, Modern Order of Phoenix; meets every Thursday evening at their home, cor. Fort and Beretania.
- Honolulu Lodge, L. O. O. M., No. 800, meets second and fourth Thursdays of the month in Pythian Hall.
- American Association of Masters and Pilots of Steam Vessels, Honolulu Harbor, No. 54; meets first Sunday of each month at 7 p. m. in Odd Fellows' Hall.
- Marine Engineers' Beneficial Association No. 100; meets every second and fourth Monday nights at K. of P. Hall.
- Kamehameha Lodge (native); meets second and fourth Tuesdays of each month in Pythian Hall.
- Kauikeaouli Lodge No. 1 (native); meets on first and third Fridays each month in San Antonio Hall.

PLACES OF WORSHIP.

- Central Union Church, Congregational, cor. Beretania and Richards streets; Rev. A. W. Palmer, Minister, Rev. A. E. Shattuck, associate minister. Services every Sunday at 11 a. m. and 7:30 p. m. Sunday school meets one hour before morning service. Prayer meeting Wednesday evenings at 7:30.
- Kalihi Union Church, King street, Kalihi; Dr. A. S. Baker, pastor. Sunday school at 9:45 a.m. Gospel services at 11 a.m. and 8 p.m.
- Methodist Episcopal Church, corner Beretania and Victoria streets; Rev. M. H. Alexander, pastor. Sunday services 11 a. m. and 7:30 p. m. Sunday school meets at 10 a. m. Prayer meeting Wednesdays at 7:30 p. m.
- The Christian Church, Kewalo street. Rev. Hugh V. White, pastor. Sunday services at 11 a. m. and 7:30 p. m. Sunday school meets at 9:45 a. m. Prayer meeting Wednesday evenings, at 7:30.
- Salvation Army, services held nightly at hall, 69 Beretania St., with Sunday services at the usual hour.

- Roman Catholic Church, Fort street, near Beretania; Rt. Rev. Libert Boeynaems, Bishop of Zeugma. Services every Sunday at 10 a. m. and 4:30 p. m. Low mass every day at 6 and 7 a. m. High mass Sundays and Saints' days at 10 a. m.
- St. Andrew's Cathedral, Protestant Episcopal; entrance from Emma street, near Beretania. Rt. Rev. John D. La Mothe, Bishop of the Missionary District of Honolulu; Rev. Wm. Ault, Vicar. Holy Communion, 7; Sunday school, 10; morning prayer, litany and sermon, 11; Hawaiian service, 3:30; evening prayer and sermon, 7:30.
- Chinese Congregation. Rev. Kong Yin Tet, Curate. Services on Sunday at 11 a.m. and 7:30 p.m. Evening prayer every Wednesday at 7 p.m.
- St. Clement's Chapel, Punahou. Services on Sundays. Holy Communion, 7 a. m. Morning prayer, 11 a. m.; evening prayer, 7:30 p. m. Rev. John Usborne, rector.
- Epiphany Mission, Kaimuki, E. J. H. Van Deerling, D. D., priest in charge. Sunday services at 7:30 and 11 a. m. Sunday school at 10.
- First Church of Christ, Scientist, cor. Wilder and Kewalo streets. Sunday services 11 a.m. Sunday school at 9:45.
- Christian Chinese Church, Fort street; Rev. Yuen To Pui, pastor. Services every Sunday at 10:30 a. m. and 7:30 p. m. Prayer meeting Wednesdays at 7:30 p. m.
- Second Chinese Church (Congregational), Beretania street, Rev. Tse Kei Yuen, pastor. Services at usual hours.
- German Lutheran Church, Beretania St.; Dr. A. Hoermann, pastor. Services on Sunday at 11 a. m.; Sunday school at 10 a. m.

- Portuguese (Protestant) Mission; Rev. A. V. Soares, pastor. Services every Sabbath at the usual hour. Sunday school at 3 p. m. Chapel situated corner of Punchbowl and Miller streets.
- Reorganized Church of Jesus Christ. Chapel on King street, near Thomas Square; Sunday school at 10 a.m.; preaching in Hawaiian at 11 a.m.; in English at 7:30 p.m.
- Seventh Day Adventists; Rev. L. L.
 Hutchinson, pastor. Chapel, Keeaumoku street. Sabbath school Saturdays at 10 a. m.; preaching at 11.
 Wednesday prayer and missionary
 meeting at 7:30 p. m.
- Japanese Union Church (connected with Hawaiian Board Missions); Rev. T. Hori, pastor. Hold services at 10 a. m. Preaching at 11 a. m. and 7:30 p. m. Sunday services. Prayer and praise meeting Wednesdays at 7 p. m.
- Korean Methodist Church, Rev. W. C. Pang, pastor; Punchbowl St. near Beretania. Services at usual hours.
- Japanese Methodist Church. Rev. C. Nakamura, pastor. Hold services in chapel on River street, near St. Louis College.
- Japanese Church, cor. Kinau and Pensacola Sts., Rev. T. Okumura, pastor; hold regular services at the usual hours.
- Bishop Memorial Chapel, Kamehameha Schools. Rev. E. T. Sherman, Chaplain. Morning services at 11.

NATIVE CHURCHES.

- Kawaiahao Church, cor. King and Punchbowl streets; Rev. Akaiko Akana, pastor. Services in Hawaiian every Sunday at 11 a. m. and 7:30 p. m. Sunday school at 10 a. m. Prayer meeting Wednesdays at 7:30 p. m.
- Kaumakapili Church, King street, Palama. Rev. H. K. Poepoe, pastor; Rev. S. K. Kamaiopili, assistant. Sunday services at the usual hours.

COUNTY OFFICIALS.

City and County Attorney. Wm. H. Heen Supervisors—E. P. Low, Chas. N. Arnold, J. Kumalae, Ben Hollinger, W. H. McClellan, M. C. Pacheco, Lester Petrie

County Engineer......Frederick Ohrt Chief Engineer Fire Dept.—Chas. H. Thurston.

- CITY AND COUNTY OF HONOLULU. Asst. Engineer Fire Dept. Wm. Blaisdell.
 - Supt. Electric Light Dept. and Police and Fire Alarm System—W. L. Frazee.
 - 1st Deputy County Attorney—H. E. Stafford.
 - 2nd Deputy County Attorney—H. R. Hewitt.
 - 3rd Deputy County Attorney—Huron K. Ashford.
 - Prosecuting Attorney, Police Court, Claus L. Roberts.
 - Bandmaster Hawaiian Band Mekia Kealakai.
 - Supt. Pub. Parks-Frank C. Benevedes.

COUNTY OF MAUI.

| Sheriff |
|----------------------------------|
| Attorney E. R. Bevans |
| Auditor Charles Wilcox |
| TreasurerJ. P. Cockett |
| ClerkW. F. Kaae |
| Supervisors—S. E. Kalama, chair- |
| Supervisors—S. E. Karama, Chair- |
| man; D. T. Fleming, R. A. Drum- |

COUNTY OF HAWAII.

| Sheriff | Samuel K. Pua |
|-----------|---------------------|
| Auditor | .S. M. Spencer |
| Clerk | archibald Hapai |
| Attorney. | W. H. Beers |
| Treasurer | Chas. Swain |

Engineer...........W. R. Barringer Supervisors—S. Kauhane, chairman; J. R. Yates, A. M. Cabrinha, E. H. Lyman, W. A. Todd, Jas. Ako, A. A. Akana.

COUNTY OF KAUAI.

| Sheriff |
|----------------------------------|
| Auditor |
| ClerkJ. M. Kaneakua |
| AttorneyS. K. Kaeo |
| TreasurerK. C. Ahana |
| Supervisors-Waimea, Th. Brandt; |
| Koloa, J. I. Silva; Lihue, H. D. |
| Wishard; Kawaiha, Fred Mendes; |
| Hanalei, A. Menefoglio. |

FEDERAL OFFICIALS.

DEPARTMENT OF JUSTICE. U. S. DISTRICT COURT.

| U. S. DISTRICT COURT. |
|--|
| Hon. H. W. Vaughn Judges U. S. J. B. Poindexter Dist. Court S. C. Huber U. S. Attorney |
| N. D. GodboldAsst. U. S. Attorney Oscar P. CoxU. S. Marshal |
| O. F. Heine. Office Dep. U. S. Marshal |
| L. K. Silva, Albert K. Naukana |
| Assts. Office Dept. U. S. Marshal |
| Wm. L. Rosa |
| E. J. Botts, Ritchie G. Rosa |
| U. S. Commissioners |
| H. K. AshfordReferee in Bankruptcy J. A. M. OsorioU. S. Comsnr., Hilo |
| Referee, Hilo |
| C. D. LufkinReferee, Kahului |
| Regular Terms:—At Honolulu on the second Monday in April and October. |
| Special Terms:—May be held at such |
| times and places in the district as the Judge may deem expedient. |
| Misses A. L. Winchester, Margaret |
| RawleyClerks, U. S. Attorney |
| J. W. JonesU. S. Court Reporter |
| Mrs. Sara Holland—Secretary to U. |

S. District Judges.
U. S. Jury Commissioners—A. E. Harris, W. H. Smith.

TREASURY DEPARTMENT. CUSTOMS DIVISION.

| Harry E. MurrayCollector |
|--------------------------------------|
| Roger J. Taylor |
| Special Deputy Collector |
| Raymer SharpChief Examiner |
| G. M. MyerDep. Col. and Cashier |
| F. L. Beringer, R. H. Bemrose, E. H. |
| Boyen, R. Friedersdorff, E. A. K. |
| WilliamsExaminers |
| J. B. Gibson, E. E. Miller, Mary K. |
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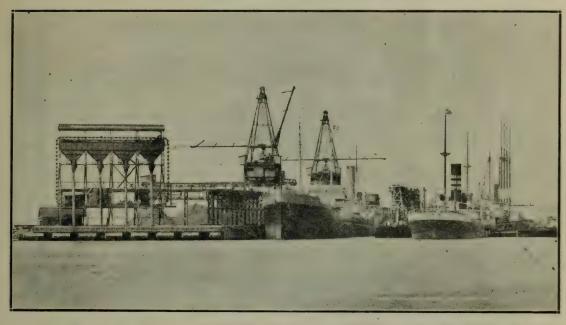
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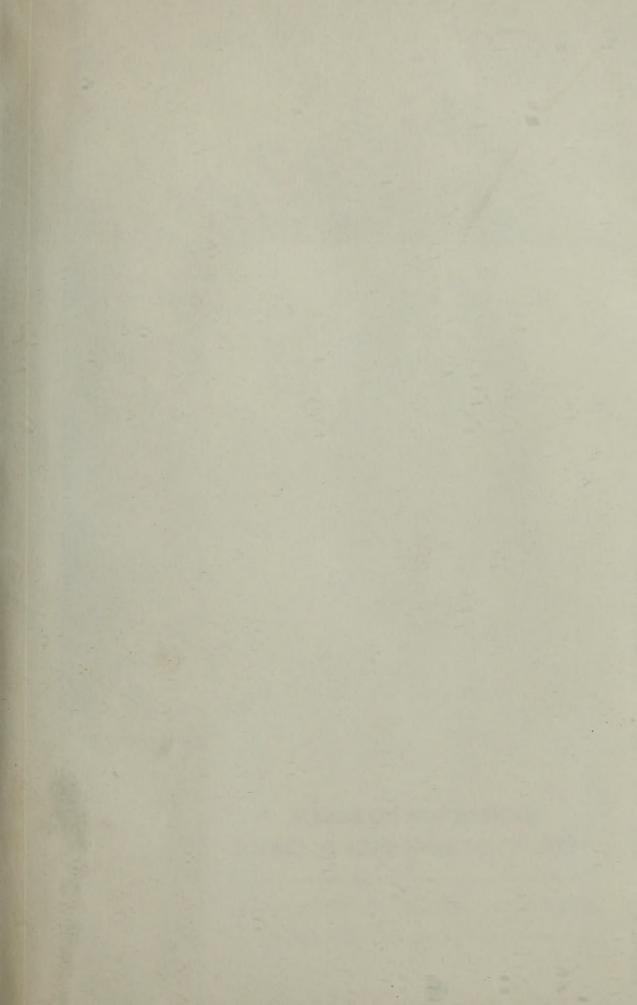
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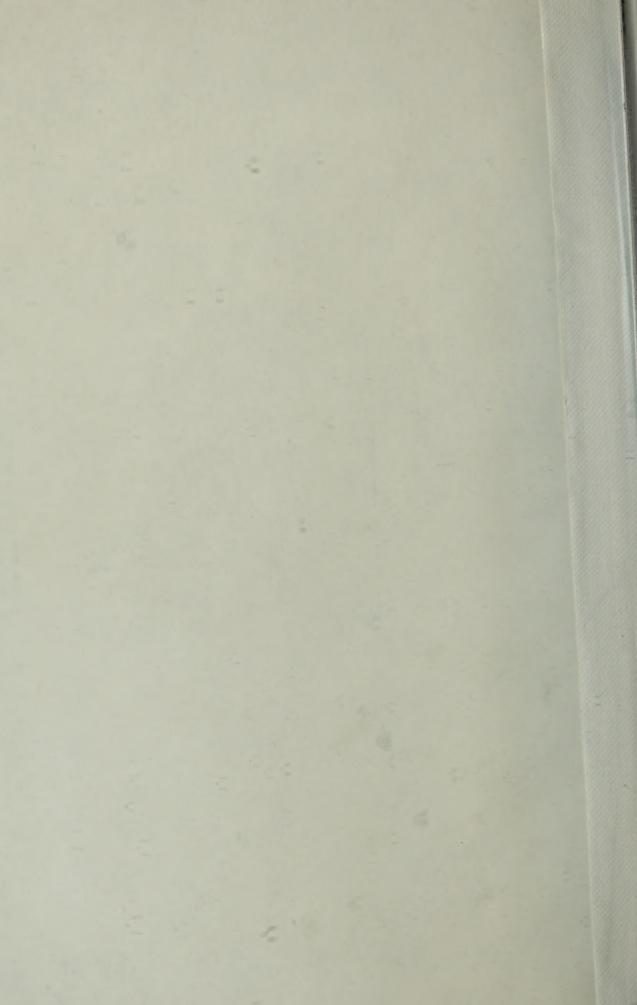
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